2023. Journal of Arachnology 51:287–377

A revision of the open-holed trapdoor spiders of the *Teyl damsonoides*-group (Mygalomorphae: Anamidae: Teylinae) from south-western Australia

Michael G. Rix[1,2], Jeremy D. Wilson[1,2,3] and Mark S. Harvey[2,3]: [1]Biodiversity and Geosciences Program, Queensland Museum, South Brisbane, Queensland 4101, Australia. E-mail: michael.rix@qm.qld.gov.au; [2]Collections and Research Centre, Western Australian Museum, Welshpool, Western Australia 6106, Australia; [3]School of Biological Sciences, The University of Western Australia, Crawley, Western Australia 6009, Australia.

Abstract. The open-holed trapdoor spiders of the *Teyl damsonoides*-group (formerly included in the now synonymized genus *Merredinia* Main, 1983) are revised, and 20 new species are described from the biodiversity hotspot of south-western Western Australia. The only previously described species, *T. damsonoides* (Main, 1983), is further re-described and re-illustrated, and molecular data from seven genes for a subset of nine species are analyzed using Bayesian methods. The *damsonoides*-group of *Teyl* are unusual for their stunning bi-colored appearance and the bowed morphology of the male metatarsus I, and we here document the known diversity and biology of these little-known spiders.

Keywords: Avicularioidea, biogeography, Nemesiidae, Nemesioidina, taxonomy

https://doi.org/10.1636/JoA-S-21-077

ZooBank Registration: http://zoobank.org/?lsid=urn:lsid:zoobank.org:pub:3CB76FCB-9793-4F4A-B1F5-EE82337E3226

The open-holed trapdoor spiders of the genus *Teyl* Main, 1975 (Figs. 1–9) are a taxonomically poorly-documented yet highly diverse group of Anamidae, with a broad distribution across mainland Australia from the Indian Ocean coastline of Western Australia east to western Victoria (Huey et al. 2019). The vast majority of species are found in the south-western Australian biodiversity hotspot (see Rix et al. 2015), although most of these remain undescribed (MGR, MSH, unpubl. data), and only seven species have so far been named (Huey et al. 2019). However, thanks to dedicated molecular phylogenetic research over the last five years, incorporating increasingly large numbers of undescribed morpho-species plus all four named species from Western Australia (e.g. Harvey et al. 2018, 2020; Huey et al. 2019; Rix et al. 2020a, b, 2021), the genus *Teyl* is now a well-understood, clearly delimited and monophyletic assemblage of mostly temperate southern Australian Teylinae, sister to the genus *Namea* Raven, 1984 from eastern Australia, and synonymous with the genera *Pseudoteyl* Main, 1985 and *Merredinia* Main, 1983 (see Harvey et al. 2018).

Species of *Teyl* are a major component of the mygalomorph fauna of south-western Western Australia, where they are well known for building open-holed burrows in mallee country, especially in the Avon Wheatbelt, Mallee, Esperance Plains and Coolgardie bioregions (see Huey et al. 2019, fig. 1). The females of many species are sleek, usually glabrous and often spectacularly colored in life (sometimes earning them the name 'citrine spiders'; see Main 1975) and are arguably among the most beautiful mygalomorph spiders in Western Australia. Species in the *damsonoides*-group – first recognized by Main (1983) in her generic concept of *Merredinia*, and then by Harvey et al. (2018) in their phylogenetic concept of the corresponding clade of *Teyl* – are no exception, and are striking for the usually bi-colored (black/honey-red) appearance of females (Figs. 2–5) [although some, such as *T. damsonoides* (Main, 1983) are mostly black in color; Fig. 1]. Previously known from just a single described species (*T. damsonoides*), collections assembled over the last four decades have revealed the *damsonoides*-group to be monophyletic and remarkably diverse in the mallee woodlands and temperate sandy heathlands of south-western Western Australia (Fig. 11), with a further 20 species now known. Males are unusual in possessing a distinctly bowed metatarsus I morphology (Figs. 6, 12), making them easy to identify in collections, and females are unusual among *Teyl* in having a very dark somatic coloration in life. Like most Anamidae, the burrows of *damsonoides*-group species are open and without a trapdoor (Figs. 7–9), although a few taxa build collared or turreted entrance structures (Figs. 8, 9).

In this paper, we revise the known species in the *damsonoides*-group of *Teyl*, summarizing their known biology and distributions, and reconciling newly analyzed molecular data with morphology. Twenty new species are described, taking the number of species in the group to 21, and the total number of species in the genus to 27.

METHODS

Phylogenetic methods.—Nucleotide sequence data were generated for seven protein-coding genes from two specimens in the *damsonoides*-group, and these were added to the data matrix of Rix et al. (2020a; with reduced representation of *Namea*) for a final concatened dataset of 80 taxa (42 *Teyl*) of length 5,224 bp (Table 1; Supplementary File S1, online at https://doi.org/10.1636/JoA-S-21-077.s1). The seven genes (see Harvey et al. 2018; Rix et al. 2020a) included three mitochondrial genes (cytochrome *c* oxidase subunit 1 [*COI*], 12S rRNA [12S] and 16S rRNA [16S]), plus four nuclear loci (18S rRNA [18S], 28S rRNA [28S], histone H3 [*H3*] and elongation factor 1-gamma [*EF-1γ*]). Standard methods of sequence generation, sequence concatenation, multiple sequence alignment, data partitioning, and Bayesian phylogenetic analysis, as applied to Anamidae, have been detailed previously by the authors (see Rix et al. 2020a, 2021; Harvey et al. 2020), with the data matrix and full analysis parameters available in Supplementary File S1.

Morphological methods.—Standard morphological methods, including the format of species descriptions, follow similar recent taxonomic contributions on Teylinae by the authors (Huey et al. 2019; Rix et al. 2020a, b). Digital automontage images were taken using a Leica M165C stereomicroscope with mounted DFC425 digital camera and processed using Leica Application Suite v3.7 software.

Integration of datasets, including male morphology, female morphology, and sequenced specimens (only females and/or juveniles in all but one species), was achieved using a conservative approach,

Figures 1–9.—Live habitus and burrow images of *Teyl* species in the *damsonoides*-group: 1, female *T. damsonoides* (Main, 1983) (WAM T137482) from Lake Cronin Nature Reserve, Western Australia; 2, female *T.* ~*loxleyae* sp. nov. (WAM T143011) from Little Beach, Two Peoples Bay Nature Reserve, Western Australia; 3, female *T.* ~*meridionalis* sp. nov. (WAM T147625) from Cape Riche, Western Australia; 4, female *T. howensis* sp. nov. (WAM T134903) from Lake William, West Cape Howe National Park, Western Australia; 5, female *T.* ~*ignicans* sp. nov. (WAM T147594) from Stirling Range National Park, Western Australia; 6, male *T. loxleyae* sp. nov. (WAM T151674) from NE. of Porongurup, Western Australia (arrow to proximally-bowed leg I metatarsus); 7, burrow of *T. damsonoides* from Lake Cronin Nature Reserve, Western Australia; 8, burrow of *T. howensis* sp. nov. from Lake William, West Cape Howe National Park, Western Australia; 9, turreted burrow of *T.* ~*loxleyae* sp. nov. from Little Beach, Two Peoples Bay Nature Reserve, Western Australia. Images 1–8 by M. Harvey; 9 by M. Rix. Specimens or burrows tentatively linked to a named species are indicated (~).

whereby male morphology was overwhelmingly used to guide the taxonomic hypotheses (in 19 of 21 species). Sequenced specimens were in most cases only tentatively linked to described males, and only two geographically isolated specimens represented solely by sequenced females were named as new, as working hypotheses (despite the small risk posed of naming the same species as different based on two sexes). Geographically isolated, morphology-only females were not identified for this study, given the difficulties posed by the complex overlapping distributions of so many species in the Avon Wheatbelt and Mallee bioregions (see Figure 11 and the '*Teyl* spp. indet.' section at the end of the taxonomic species treatments). We hereby introduce a new convention for summarizing the different datasets available for each named species, with a 'Data coverage' statement at the beginning of each species treatment, as follows: M, male morphology; F, female morphology; J, juvenile morphology; DNA^{sex}, sequenced specimens of [superscript] sex. For those examined specimens included in the molecular phylogenetic analysis of Rix et al. (2020a), or newly sequenced for this study (see Table 1), a 'DNA' superscript code is listed next to each repository registration number.

All measurements are in millimeters (to one decimal point), and total length measurements include the chelicerae, in dorsal view, but exclude the spinnerets. Leg I measurements were made along the dorsal edge of each segment, in prolateral view. Female genitalia were dissected and cleared in lactic acid. For readability and ease of diagnosis, 'sp. nov.' epithets are removed from the main text after the key to species.

Specimens are lodged at the Western Australian Museum, Perth (WAM) or the Queensland Museum, Brisbane (QMB), and the following abbreviations are used throughout the text: ALE, anterior lateral eye/s; AME, anterior median eye/s; IBRA, Interim Biogeographic Regionalisation of Australia Version 7 (online at https://www.environment.gov.au/land/nrs/science/ibra); PL, prolateral;

Table 1.—GenBank accession numbers for 80 specimens used in the molecular phylogenetic analysis. Highlighted (*) specimens were newly sequenced for this study. Specimens tentatively linked to a named species are indicated (~). Previously described *Teyl* collected from at or near type localities are also indicated (#). QMB = Queensland Museum; SAM = South Australian Museum; WAM = Western Australian Museum.

Specimen & depository	*COI*	12S	16S	*H3*	18S	28S	*EF-1γ*
EUAGRIDAE (outgroup)							
Cethegus Thorell, 1881 [1]							
C. fugax (WAM T129260)	KY295227	KY320448	KY320451	KY295101	KY294840	KY294963	–
PORRHOTHELIDAE							
Porrhothele Simon, 1892 [1]							
P. sp. indet. (QMB S111386)	–	MT280964	MT281032	MT281253	MT281107	MT281179	–
PYCNOTHELIDAE							
Stanwellia Rainbow & Pulleine, 1918 [4]							
S. nebulosa (SAM NN28449)	MG800186	MG799858	MG799983	–	MG800060	MG800138	MG800258
S. sp. indet. (QMB S111338)	MT280818	–	MT281031	–	MT281096	MT281178	MT281251
S. sp. indet. (QMB S111388)	–	–	MT281030	–	MT281095	MT281177	–
S. sp. indet. (QMB S111428)	MT280817	–	MT281029	MT281252	MT281094	MT281176	MT281250
ANAMIDAE: ANAMINAE							
Aname Group							
Aname L. Koch, 1873 [7]							
A. aragog (WAM T95409)	KJ745403	KY214181	KY241234	KY241287	KY241250	KY241265	MG800219
A. ellenae (WAM T98890)	KJ745484	KY214186	KY241238	KY241291	KY241255	KY241270	–
A. marae (WAM T98424)	KJ745450	KY214185	–	KY241290	KY241254	KY241269	–
A. mellosa (WAM T107182)	KJ745440	KY214184	KY241237	MG800294	KY241253	KY241268	MG800231
A. sp. indet. (QMB S111402)	–	–	MT281027	MT281268	MT281106	MT281182	MT281249
A. sp. indet. (QMB S111405)	MT280892	–	MT281026	MT281267	MT281105	MT281181	MT281248
A. sp. indet . (QMB S111473)	–	MT280963	MT281028	MT281266	MT281104	MT281180	–
Hesperonatalius Castalanelli, Huey, Hillyer & Harvey, 2017 [2]							
H. langlandsi (WAM T108988)	–	KY214189	KY241243	–	KY241258	KY241274	MG800232
H. maxwelli (WAM T108989)	–	KY214190	KY241244	KY241293	KY241259	KY241275	MG800233
Kwonkan Group							
Kwonkan Main, 1983 [3]							
K. turrigera (WAM T134203)	MG800182	MG799911	–	MG800313	MG800056	MG800134	MG800254
K. sp. 'MYG197' (WAM T130375)	MG800166	–	MG799963	MG800301	MG800038	MG800116	MG800239
K. sp. 'MYG392' (WAM T132363)	MG800175	MG799904	MG799972	MG800306	MG800047	MG800125	–
Swolnpes Main & Framenau, 2009 [2]							
S. darwini (WAM T97003)	KY241280	KY214183	KY241236	KY241289	KY241252	KY241267	MG800223
S. sp. 'MYG415' (WAM T53579)	MG800145	MG799863	–	MG800266	MG799993	MG800070	–
ANAMIDAE: TEYLINAE							
Chenistonia Group							
Chenistonia Hogg, 1901 [3]							
C. sp. 'MYG348' (WAM T72687)	–	KY214180	KY241231	KY241284	KY241247	KY241262	MG800196
C. sp. 'MYG348' (WAM T81017)	MG800151	MG799878	MG799940	MG800276	MG800011	MG800088	MG800210
C. sp. 'MYG348' (WAM T81018)	MG800152	MG799879	MG799941	MG800277	MG800012	MG800089	MG800211
Proshermacha Simon, 1908 [5]							
P. wilga (WAM T80952)	MG800150	–	MG799939	MG800275	MG800010	MG800087	MG800209
P. sp. 'MYG344' (WAM T132981)	MG800181	–	MG799978	MG800311	MG800054	MG800132	MG800251
P. sp. 'MYG468' (WAM T96060)	MG800158	–	MG799948	MG800285	MG800020	MG800097	MG800220
P. sp. 'MYG469' (WAM T94765)	MG800156	–	MG799945	MG800281	MG800016	MG800093	MG800214
P. sp. 'MYG471' (WAM T132903)	–	MG799907	MG799974	MG800309	MG800050	MG800128	–
Teyloides Main, 1985 [1]							
T. bakeri (SAM NN29525)	MG800144	MG799861	–	MG800265	MG799991	MG800068	MG800190
Teyl Group							
Namea Raven, 1984 [9]							
N. brisbanensis (QMB S111356)	MT280866	MT280912	MT281000	–	MT281078	MT281155	MT281223
N. dahmsi (QMB S111381)	MT280891	–	MT281022	MT281262	MT281056	MT281173	MT281244
N. excavans (QMB S111535)	MT280884	MT280941	MT281025	–	–	–	–
N. flavomaculata (WAM T133310)	KY241282	KY214192	KY241246	KY241294	KY241261	KY241277	MG800253
N. jimna (QMB S111410)	MT280875	–	MT281011	–	MT281093	MT281132	MT281236

Table 1.—Continued.

Specimen & depository	*COI*	12S	16S	*H3*	18S	28S	*EF-1γ*
N. salanitri (QMB S111396)	MT280830	MT280924	MT280977	–	MT281057	MT281119	MT281224
N. sp. 'Goomboor.' (QMB S111359)	MT280881	MT280950	MT281013	MT281261	MT281089	MT281139	MT281238
N. sp. 'Kroombit' (QMB S111330)	MT280887	MT280960	–	–	MT281051	MT281171	MT281231
N. sp. 'Ravensb.2' (QMB S111445)	MT280883	MT280942	MT281019	MT281264	MT281043	MT281175	MT281228
Teyl Main, 1975 [42]							
damsonoides-group							
T. damsonoides (WAM T137482)#	MG800187	MG799915	MG799984	–	MG800061	–	MG800259
T. ~*ignicans* (QMB S111454)	MT280811	MT280896	MT280967	–	MT281041	MT281111	MT281187
T. ~*ignicans* (QMB S111455)	MT280812	MT280895	MT280966	–	MT281037	MT281110	MT281186
T. ~*ignicans* (WAM T147594)	MT280810	–	–	–	MT281036	MT281114	MT281185
T. ~*ignicans* (WAM T147598)	MT280813	–	MT280968	–	MT281035	MT281109	MT281184
T. ~*ignicans* (WAM T147628)	MT280809	MT280894	MT280965	–	MT281033	MT281108	MT281183
T. lengae (WAM T80899)	MG800149	MG799877	MG799938	–	MG800009	MG800086	MG800208
T. ~*loxleyae* (WAM T78556)	MG800148	MG799876	MG799937	–	MG800008	MG800085	MG800207
T. ~*meridionalis* (WAM T78514)	–	MG799873	MG799934	–	MG800005	MG800082	MG800203
T. ~*meridionalis* (WAM T147618)	–	MT280898	MT280970	–	MT281040	MT281113	MT281190
T. ~*meridionalis* (WAM T147624)	–	MT280899	–	–	MT281103	MT281112	MT281189
T. ~*meridionalis* (WAM T147625)	MT280814	MT280897	MT280969	–	MT281039	MT281115	MT281188
T. ~*melindae* (WAM T78519)	–	MG799874	MG799935	MG800273	MG800006	MG800083	MG800204
T. ~*regalis* (WAM T145304)*	ON381730	ON381731	–	–	–	ON381732	–
T. safferae (WAM T132934)	MG800179	MG799909	MG799976	MG800310	MG800052	MG800130	–
T. tealei (WAM T72718)*	ON381729	–	–	–	–	–	–
T. tealei (WAM T72719)	MG800147	MG799868	MG799929	–	MG800000	MG800077	MG800198
Other *Teyl* species							
T. heuretes (WAM T91918)#	MN101151	MN104643	MN104652	ON381733	MN104658	MN104650	MN101153
T. heuretes (WAM T112357)	MN101150	–	–	MN101154	–	–	–
T. heuretes (WAM T113601)	MN101149	–	MN104651	–	MN104657	MN104649	–
T. luculentus (WAM T141133)#	MN101147	–	–	–	–	–	–
T. vancouveri (WAM T16804)#	–	MN104644	MN104653	–	–	–	–
T. nr. *harveyi* (SAM NN29080)	–	MN104646	MN104655	–	–	–	–
T. nr. *harveyi* (SAM NN29081)	–	MN104645	MN104654	–	MN104659	–	–
T. nr. *luculentus* (WAM T117267)	MN101148	–	–	–	–	–	–
T. nr. *yeni* (SAM NN29072)	MN101152	MN104648	MN104656	–	–	–	–
T. nr. *yeni* (SAM NN29074)	–	MN104647	–	–	–	–	–
T. sp. 'MYG012' (WAM T96062)	KJ745412	KY214182	KY241235	KY241288	KY241251	KY241266	MG800221
T. sp. 'MYG021' (WAM T94766)	KJ745380	MG799881	–	MG800282	MG800017	MG800094	MG800215
T. sp. 'MYG021' (WAM T94770)	KJ745381	–	–	–	–	–	–
T. sp. 'MYG053' (WAM T96326)	MG800159	MG799883	MG799949	MG800286	MG800021	MG800098	MG800222
T. sp. 'MYG345' (WAM T62261)	KJ745216	MG799867	MG799926	MG800269	MG799997	MG800074	MG800194
T. sp. 'MYG353' (WAM T78512)	KJ745272	–	–	–	–	–	–
T. sp. 'MYG358' (WAM T78529)	KJ745277	MG799875	MG799936	MG800274	MG800007	MG800084	MG800205
T. sp. 'MYG358' (WAM T78530)	KJ745278	–	–	–	–	–	–
T. sp. 'MYG358' (WAM T78531)	KJ745279	–	–	–	–	–	–
T. sp. 'MYG412' (WAM T116018)	MG800164	MG799895	MG799961	MG800297	MG800034	MG800111	MG800189
T. sp. 'MYG450' (WAM T136876)	MG800183	MG799912	–	–	–	–	–
T. sp. 'MYG456' (WAM T72722)	–	MG799869	MG799930	MG800271	MG800001	MG800078	MG800199
T. sp. 'MYG457' (WAM T132932)	MG800178	MG799908	MG799975	–	MG800051	MG800129	–
T. sp. 'MYG634' (QMB S111453)	MT280816	MT280962	MT280971	–	MT281038	MT281117	MT281247
T. sp. 'MYG634' (WAM T147603)	MT280815	MT280961	–	–	MT281034	MT281116	MT281246

PLE, posterior lateral eye/s; PME, posterior median eye/s; RL, retrolateral.

RESULTS AND DISCUSSION

Phylogenetic analysis of the 80-taxon (seven gene) molecular matrix, expanded from Rix et al. (2020a) to include two new *Teyl* specimens in the *damsonoides*-group (see Table 1), resulted in an identical overall topology to that inferred by Rix et al. (2020a). The family Anamidae, subfamilies Anaminae and Teylinae, and the genera *Namea* and *Teyl*, were all recovered as monophyletic with strong support (Fig. 10). Within the genus *Teyl*, the *damsonoides*-group (with 17 specimens representing nine species) was also monophyletic with strong support, although not closely aligned with any other major lineage of *Teyl* (Fig. 10). Other major clades of *Teyl*, and the overall topology of the *Teyl* phylogeny, were fully concordant with the results of Huey et al. (2019, fig. 3).

The inference of a monophyletic *damsonoides*-group from south-western Western Australia is not surprising, as these results build upon a now detailed understanding of anamid phylogenetic

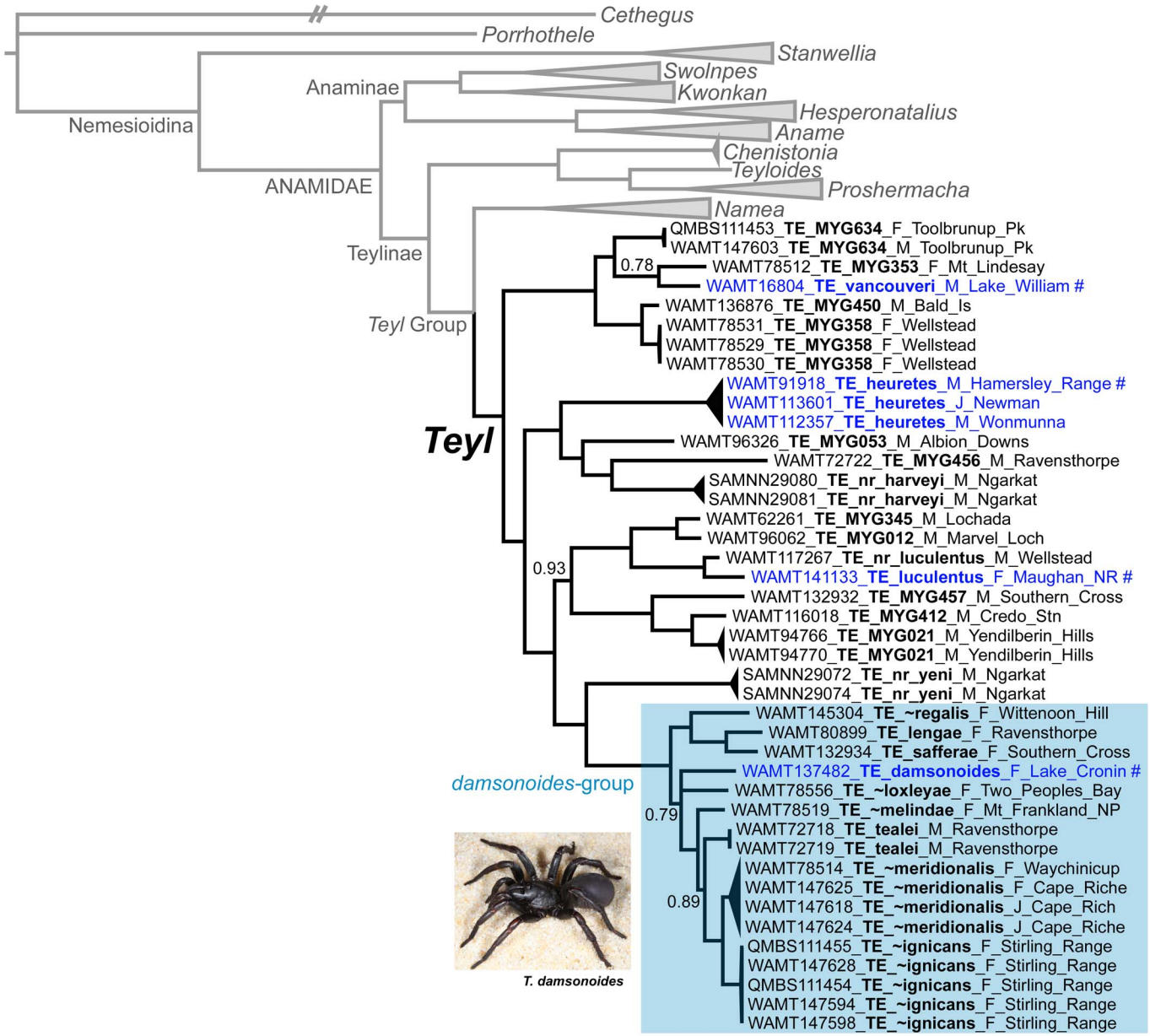


Figure 10.—Phylogeny of the genus *Teyl* (expanded from Rix et al. 2020a), inferred from a partitioned Bayesian analysis of the 7 gene molecular dataset (80 taxa, 5,224 bp, 50% majority-rule consensus tree). Nodes have a posterior probability ≥ 0.97 unless otherwise stated, and previously named species are shown in blue text, with specimens collected from at or near type localities highlighted (#). Specimens tentatively linked to a named species are indicated (∼). Note the monophyletic *damsonoides*-group.

relationships, following five years of intense study (e.g. see Harvey et al. 2018, 2020; Huey et al. 2019; Rix et al. 2020a, b, 2021). The *damsonoides*-group clade was first recovered by Harvey et al. (2018) (as the '*Merredinia*' clade), rendering the genus *Teyl* otherwise paraphyletic. Indeed, since the genus *Merredinia* was synonymized with *Teyl* by Harvey et al. (2018) on the back of these results, the molecular phylogenetic position and composition of the *damsonoides*-group has not changed with subsequent analyses. Our results and new sequences simply add another species to the mix, and allow for a phylogenetic foundation on which a detailed taxonomic monography can now be developed (see below).

TAXONOMY

Family Anamidae Simon, 1889
Subfamily Teylinae Main, 1985
Genus *Teyl* Main, 1975

Teyl Main, 1975: 74.

Merredinia Main, 1983: 931. Type species *Merredinia damsonoides* Main, 1983, by original designation (synonymized by Harvey et al., 2018: 436).

Pseudoteyl Main, 1985: 753. Type species *Pseudoteyl vancouveri* Main, 1985 by original designation (synonymized by Harvey et al., 2018: 437).

Figure 11.—Map showing the known distribution of the *Teyl damsonoides*-group in south-western Australia. Black dots denote specimens identified to species; grey dots denote unidentified females and juveniles. Relevant IBRA 7.0 bioregional acronyms are as follows: AVW, Avon Wheatbelt; CAR, Carnarvon; COO, Coolgardie; ESP, Esperance Plains; GES, Geraldton Sandplains; JAF, Jarrah Forest; MAL, Mallee; WAR, Warren; YAL, Yalgoo.

Type species.—*Teyl luculentus* Main, 1975, by original designation.

Diagnosis.—For a full discussion on the diagnostic characters separating *Teyl* and *Namea* see Rix et al. (2020a); and for an updated key to the genera and subfamilies of Anamidae see Harvey et al. (2020).

Distribution.—The genus *Teyl* has a broad distribution across the semi-arid and arid zones of southern Australia, from south-western Western Australia east to western Victoria, with a few species extending north as far as the Pilbara bioregion in Western Australia (Huey et al. 2019).

Composition and remarks.—The genus *Teyl* includes seven described species, with an additional 20 species newly described in this study. Numerous undescribed species are also known from museum collections (MGR, MSH, unpubl. data).

THE *DAMSONOIDES*-GROUP

Diagnosis and remarks.—The monophyletic *damsonoides*-group (Fig. 10) comprises 21 known species of *Teyl*, all of which are restricted to south-western Western Australia. They have a distribution that extends from the southern Carnarvon Basin to the south-eastern Coolgardie and eastern Mallee bioregions, with a core range encompassing the central and southern Avon Wheatbelt, southern Jarrah Forest, Esperance Plains and Mallee bioregions (Fig. 11). Males and females exhibit strong sexual dimorphism in life (Figs. 1–5; cf. Fig. 6); males can be distinguished from other congeners by the unusual morphology of metatarsus I, which is distinctly bowed proximally (Figs. 6, 12), and females by their spectacular (usually bi-colored) somatic coloration, which is very dark brown-black, black or purple-black in life, with varying degrees of contrasting honey-red coloration on the patellae, tibiae or metatarsi of the legs and palps (Figs. 1–5). Species in the *damsonoides*-group are a distinctive component of the mygalomorph fauna of temperate southern Western Australia, especially in mallee woodland and coastal heathland habitats, and are not uncommon in some areas. Burrows are open, without a door, and with or without an internal silk lining (Figs. 7, 8); a few species also build a collared or turreted burrow entrance (Fig. 9).

KEY TO *TEYL* SPECIES OF THE *DAMSONOIDES*-GROUP FROM SOUTH-WESTERN WESTERN AUSTRALIA (MALES REQUIRED)

NB. Males are unknown for *T. lengae* sp. nov. and *T. safferae* sp. nov.

1. Metatarsus I highly elongate (length/width >10), usually with a prominent median retrolateral protuberance (Figs. 26, 51, 81, 151, 166, 191, 267, 332) 2
– Metatarsus I less elongate (length/width <10), with a rounded, sometimes indistinct median retrolateral protuberance (Figs. 66, 96, 111, 126, 217, 242, 292, 307, 368, 383, 398) 9
2. Embolus in a terminal position, relatively wide, with the embolus base not clearly demarcated from bulb (Figs. 20–22) ..... ***T. damsonoides*** (Main, 1983)
– Embolus in a sub-terminal position on the palpal bulb and/or slightly reflexed, with base clearly demarcated from palpal bulb (Figs. 45–47, 75–77, 145–147, 160–162, 185–187, 261–263, 326–328) 3
3. Embolus highly elongate (embolus >1.7 × bulb length) and reflexed (Figs. 145–147) ..... ***T. humphreysi*** sp. nov.
– Embolus less elongate (embolus <1.5 × bulb length), positioned sub-terminally but not reflexed (Figs. 45–47, 75–77, 160–162, 185–187, 261–263, 326–328) 4
4. Median retrolateral protuberance on metatarsus I relatively close to proximal end of segment (positioned ~0.3 × length of metatarsus from proximal end) (Fig. 81) ..... ***T. caurinus*** sp. nov.
– Median retrolateral protuberance in a more distal position (~0.4 × length of metatarsus from proximal end) (Figs. 51, 166, 191, 267, 332) 5
5. Metatarsus I with multiple spines present on retrolateral surface and >2 spines present on ventral surface (Fig. 51) ..... ***T. beaufortia*** sp. nov.
– Metatarsus I without spines on retrolateral surface and with ≤2 spines on ventral surface (Figs. 166, 191, 267, 332) 6
6. Median retrolateral protuberance on metatarsus I rounded (Fig. 267) ..... ***T. meridionalis*** sp. nov.
– Median retrolateral protuberance on metatarsus I pointed (Figs. 166, 191, 332) 7
7. Palpal tibia stout (length/width <2.6) (Figs. 326–328) ..... ***T. regalis*** sp. nov.
– Palpal tibia longer (length/width ≥2.7) (Figs. 160–162, 185–187) 8
8. Embolus thin, elongate (embolus ~1.4 × bulb length), slightly sinuous (Figs. 185–187) ..... ***T. kwonganensis*** sp. nov.
– Embolus wider, less elongate (embolus ~1.2 × bulb length), not sinuous (Figs. 160–162) ..... ***T. ignicans*** sp. nov.
9. Metatarsus I with at least 2 spines present on retrolateral face (Figs. 126, 242) 10
– Metatarsus I without spines on retrolateral face (spines only ventral and dorsal faces) (Figs. 66, 96, 111, 217, 292, 307, 368, 383, 398) 11
10. Embolus longer relative to bulb (~2 × bulb length) (Figs. 236–238) ..... ***T. melindae*** sp. nov.
– Embolus shorter relative to bulb (~1.5 × bulb length) (Figs. 120–122) ..... ***T. howensis*** sp. nov.
11. Tibia I with distal, retrolateral protuberance armed with two strong ventral spines (Figs. 65, 367, 382) 12
– Tibia I without protuberance (Figs. 95, 110, 216, 291, 306, 397) 13
12. Large species (carapace length of holotype 7.2 mm) with relatively straight embolus (Figs. 362–364) ..... ***T. sampeyae*** sp. nov.
– Large species (carapace length of holotype 7.2 mm) with gently curving embolus (Figs. 60–62) ..... ***T. brydensis*** sp. nov.
– Smaller species (carapace length of holotype <5.6 mm) with relatively straight embolus (Figs. 377–379) ..... ***T. tealei*** sp. nov.
13. Reflexed embolus strongly and evenly curved along entire length, cymbium relatively short and wide (Figs. 105–107) ..... ***T. faceyi*** sp. nov.
– Embolus less strongly and evenly curved, cymbium more elongate (Figs. 90–92, 211–213, 286–288, 301–303, 392–394) 14
14. Large species (carapace length >7.0 mm) 15
– Smaller species (carapace length <6.0 mm) 17
15. Metatarsus I only slightly bowed proximally (Fig. 217) ..... ***T. loxleyae*** sp. nov.
– Metatarsus I more strongly bowed proximally (Figs. 292, 307) 16
16. Very large species (carapace length of holotype 8.3 mm); tibia I strongly bowed proximally (Figs. 279–292) ..... ***T. nadineae*** sp. nov.
– Smaller species (carapace length of holotype 7.7 mm); tibia I less strongly bowed proximally (Figs. 294–307) ..... ***T. narrikupensis*** sp. nov.
17. Metatarsus I only slightly bowed proximally (Fig. 398) ..... ***T. undulites*** sp. nov.
– Metatarsus I more strongly bowed proximally (Fig. 96) ..... ***T. danksi*** sp. nov.

Teyl damsonoides (Main, 1983)
(Figs. 1, 7, 10, 12, 13–37)

Merredinia damsonoides Main, 1983: 933, figs. 46–54 (in part; figs. 4, 55–70 all indeterminate female specimens).

Teyl damsonoides (Main): Harvey et al., 2018: 437, fig. 10a–g. Huey et al., 2019: 353, fig. 3. Rix et al., 2020a: 684.

Data coverage.—M-F-DNA^{F}.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Lake Cronin [Lake Cronin Nature Reserve] [IBRA_COO], 32°23′S, 119°46′E, 1 July 1979, R.A. How (WAM T15238; examined).

Paratypes. AUSTRALIA: *Western Australia*: 1 ♂, same data as holotype (WAM T15242); 1 ♂, same data (WAM T15243); 1 ♂, same data (WAM T15244); 1 ♂, same data except 1 September 1978, T.F. Houston, et al. (WAM T15245); 1 ♂, same data (WAM T15249); 1 ♂, 7.5 km WSW. of Lake Cronin [IBRA_COO], 32°25′S, 119°42′E, September 1978, T.F. Houston, et al. (WAM T15246); 1 ♂, same data (WAM T15247); 1 ♂, same data except 1 September 1978 (WAM T15248).

Figure 12.—Montage of male leg I metatarsi in retrodorsal view, showing variation among species in the *Teyl damsonoides*-group.

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, E. of Vermin Proof Fence, E. of Lake King, site LK10 [IBRA_MAL], 33°02′31″S, 119°59′28″E, 15 October 1999–1 November 2000, wet pitfall trap, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T146968); 1 ♂, Gardner Reserve Road, south, NE. of Quairading, site QU2 [IBRA_AVW], 31°47′21″S, 117°29′47″E, 30 October 1997–27 May 1998, wet pitfall trap, E. Ladhams, CALM Salinity Action Plan Survey (WAM T146964); 1 ♀, Lake Cronin Nature Reserve, ca. 100 m N. of lake [IBRA_COO], 32°22′55″S, 119°45′51″E, 11 August 2015, 386 m, hand collected from burrow, J.A. Huey, M.S. Harvey (WAM T137482[DNA]).

Other material examined (tentatively linked).—AUSTRALIA: *Western Australia*: 1 ♂ (pedipalps missing), Long Muir Road, granite rock, S. of Mollerin Lake, site BE7 [IBRA_AVW], 30°32′50″S, 117°33′56″E, 16 September 1998–25 October 1999, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T148293).

Diagnosis.—Males of *Teyl damsonoides* can be distinguished from all other species in the *damsonoides*-group by the shape of the embolus, which is relatively wide and in a terminal position, with the base of the embolus not clearly demarcated from the bulb (Figs. 20–22).

Description (male holotype).—Total length 18.6. Carapace 7.4 long, 6.7 wide. Abdomen 7.2 long, 4.3 wide. Carapace (Fig. 13) red-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 16) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 110–120 cuspules confined to heel and inner proximal corner (Fig. 17); labium without cuspules. Abdomen (Figs. 14, 19) oval, light brown, densely setose. Legs (Figs. 23–26) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three longer ventral spines subdistally (Figs. 24, 25); metatarsus I (Figs. 12, 26) thin (~14 × longer than wide), bowed proximally with acute median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 8.7, patella 4.1, tibia 6.5, metatarsus 8.1, tarsus 4.4, total length 31.9. Leg I femur–tarsus/carapace length ratio 4.3. Palpal tibia (Figs. 20–22) 2.7 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (3), and prolateral (6) planes (13 total). Cymbium (Figs. 20–22) with distal scopula. Bulb (Figs. 20–22) subspherical, ~0.6 × length of palpal tibia, with terminal embolus. Embolus roughly straight, with wide base not clearly demarcated from bulb, length ~1.0 × bulb length, with thin, twisted tip.

Description (female WAM T137482).—Total length 31.31. Carapace 11.0 long, 9.3 wide. Abdomen 14.9 long, 10.1 wide. Carapace (Fig. 27) red-brown, largely glabrous; lateral margins with fringe of anteriorly curved, porrect black setae, less conspicuous than in male; fovea straight. Eye group (Fig. 30) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 220–240 cuspules confined to heel and inner proximal corner (Fig. 31); labium without cuspules. Abdomen (Figs. 28, 33) oval, brown, setose. Legs (Figs. 34, 35) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 8.1, patella 4.7, tibia 5.5, metatarsus 5.4, tarsus 3, total length 26.7. Leg I femur–tarsus/carapace length ratio 2.4. Leg I spines: femur and patella with few stout bristles; tibia 3RL, 4PL; metatarsus 4RL, 7PL. Spermathecae (Fig. 36) parallel, length/width ~2.7, with distinct crowns wider than stems.

Distribution and remarks.—*Teyl damsonoides* has a widespread distribution through inland southern Western Australia, extending from the central Avon Wheatbelt (north to approximately Mollerin Lake) to the far southern Coolgardie and central Mallee bioregions (east to approximately Lake King) (Fig. 37). However, this extent of occurrence is likely to be an underestimate based on limited collection records. The spiders are among the largest of *Teyl* in overall body size, and at Lake Cronin built open burrows with no internal silk lining (Fig. 7) (MSH pers. obs.). Little else is known of the biology or life history of this species, other than that males have been collected in winter and early spring.

Teyl beaufortia sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:32A2E5E6-52D2-4FC7-89CD-C2AE9AF3380A
(Figs. 12, 38–52)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Beaufort River Tavern, on Albany Highway [IBRA_JAF], 33°34′S, 117°05′E, 20 July 1981, pitfall trap, B.Y. Main (WAM T151583).

Etymology.—The specific epithet is a noun in apposition, and is a reference to the type (and only known) locality of this species at Beaufort River Tavern (Western Australia).

Diagnosis.—Males of *Teyl beaufortia* can be distinguished from all other species in the *damsonoides*-group by the morphology of metatarsus I, which is highly elongate (length/width >10), with multiple spines on the retrolateral surface and ≥2 spines on the ventral surface (Fig. 51) (see also Fig. 12 for direct comparisons).

Description (male holotype).—Total length 17.2. Carapace 6.8 long, 5.9 wide. Abdomen 7.1 long, 3.5 wide. Carapace (Fig. 38) tan-brown, with reflective downy setae around edges; lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 41) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 115–125 cuspules confined to heel and inner proximal corner (Fig. 42); labium without cuspules. Abdomen (Figs. 39, 44) oval, almost white (bleached), densely setose. Legs (Figs. 48–51) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three longer ventral spines subdistally (Figs. 49, 50); metatarsus I (Figs. 12, 51) thin (~12 × longer than wide), weakly bowed proximally with median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 7.6, patella 3.7, tibia 5.9, metatarsus 7.2, tarsus 4.1, total length 28.5. Leg I femur–tarsus/carapace length ratio 4.2. Palpal tibia (Figs. 45–47) 3.2 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (3) and prolateral (5) planes (12 total). Cymbium (Figs. 45–47) with distal scopula. Bulb (Figs. 45–47) sub-spherical, ~0.6 × length of palpal tibia, with subterminal embolus. Embolus gently curved, with thin base clearly demarcated from bulb, length ~1.3 × bulb length, with thin tip.

Distribution and remarks.—*Teyl beaufortia* is known only from near Beaufort River, in the central-eastern Jarrah Forest bioregion of south-western Western Australia (Fig. 52). Little else is known of the biology or life history of this species, other than that the holotype male was collected in winter.

Teyl brydensis sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:93375B8F-5BBA-4EB3-AAF6-3576D47C3B50
(Figs. 12, 53–67)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Fourteen Mile Road, Lake Bryde West Nature Reserve,

site PI2 [IBRA_MAL], 33°36′59″S, 118°48′30″E, 15 October 1999–1 November 2000, wet pitfall trap, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T147459).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, Newdegate-Ravensthorpe Road, W. of Lake King, site LK1 [IBRA_MAL], 33°05′06″S, 119°37′51″E, 15 October 1999–25 October 2000, wet pitfall traps, N.A. Guthrie, CALM Salinity Action Plan Survey (WAM T147431).

Etymology.—The specific epithet is a reference to the type locality of this species, at Lake Bryde West Nature Reserve (Western Australia).

Diagnosis.—Males of *Teyl brydensis* can be distinguished from all other species in the *damsonoides*-group, except *T. sampeyae* and *T. tealei*, by the presence on the distal tibia I of a retrolateral protuberance armed with two strong ventral spines (Fig. 65). They can further be distinguished from males of *T. sampeyae* by the shape of the embolus, which is gently curving (Figs. 60–62; cf. 362–364); and from *T. tealei* by their larger size (carapace length of holotype male 7.2 mm, compared with 5.6 mm in *T. tealei*).

Description (male holotype).—Total length 16.4. Carapace 7.2 long, 6.4 wide. Abdomen 6.3 long, 4.3 wide. Carapace (Fig. 53) orange-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 56) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.2. Maxillae each with broad field of ca. 60–70 cuspules confined to heel and inner proximal corner (Fig. 57); labium without cuspules. Abdomen (Figs. 54, 59) oval, beige, densely setose. Legs (Figs. 63–66) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with two strong ventral spines on distal protuberance (Figs. 64, 65); metatarsus I (Figs. 12, 66) relatively thick (~9 × longer than wide), strongly bowed proximally with rounded, indistinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 7.1, patella 3.5, tibia 5.4, metatarsus 6.2, tarsus 3.4, total length 25.5. Leg I femur–tarsus/carapace length ratio 3.6. Palpal tibia (Figs. 60–62) 3.2 × longer than wide, with porrect macrosetae on dorsal (2), retrolateral (2), ventral (3), and prolateral (6) planes (13 total). Cymbium (Figs. 60–62) with distal scopula. Bulb (Figs. 60–62) sub-spherical, ~0.5 × length of palpal tibia, with slightly reflexed embolus. Embolus gently curved, with thin base clearly demarcated from bulb, length ~1.0 × bulb length, with thin tip.

Distribution and remarks.—*Teyl brydensis* is known only from the western Mallee bioregion of south-western Western Australia, extending from near Lake Bryde to east of Lake King (Fig. 67). However, this extent of occurrence is likely to be an underestimate based on limited collection records. Nothing is known of the biology or life history of this species.

Teyl caurinus sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:19CD51A7-85AB-4AF9-BA59-FC68C36BBAB0
(Figs. 12, 68–82)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Nanga Station, site NA2 [IBRA_CAR], 26°29′23.3″S, 114°03′20.9″E, 11 May–30 August 1995, wet pitfall traps, N. Hall, WAM/CALM Carnarvon Survey (WAM T143095).

Paratypes. AUSTRALIA: *Western Australia*: 2 ♂, same data as holotype (WAM T151031).

Other material examined.—AUSTRALIA: *Western Australia*: 2 ♂, Zuytdorp, site ZU3 [IBRA_GES], 27°15′34″S, 114°04′03″E, 18 May–16 August 1995, wet pitfall traps, N. Hall, WAM/CALM Carnarvon Survey (WAM T151032).

Etymology.—The specific epithet is derived from the Latin *caurinus* (adjective: 'of the north-west wind'), in reference to the distribution of this species in the north-western coastal regions of south-western Western Australia.

Diagnosis.—Males of *Teyl caurinus* can be distinguished from all other species in the *damsonoides*-group by the morphology of metatarsus I, which is highly elongate (length/width >10), with the median retrolateral protuberance positioned relatively close to the proximal end of the segment (i.e., positioned ~0.3 × length of metatarsus from proximal end, compared with ~0.4 in all other species) (Fig. 81) (see also Fig. 12 for direct comparisons).

Description (male holotype).—Total length 19.61. Carapace 6.8 long, 6.2 wide. Abdomen 8.4 long, 5.4 wide. Carapace (Fig. 68) dark orange-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 71) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with thin field of ca. 25–35 cuspules confined to heel and inner proximal corner (Fig. 72); labium without cuspules. Abdomen (Figs. 69, 74) oval, almost white (bleached), sparsely setose. Legs (Figs. 78–81) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with two strong ventral spines distally (Figs. 79, 80); metatarsus I (Figs. 12, 81) thin (~13 × longer than wide), bowed proximally with sharp median retrolateral protuberance positioned ~0.3 × length of metatarsus from proximal end. Leg I: femur 8.2, patella 3.7, tibia 7.1, metatarsus 7.8, tarsus 4.1, total length 30.1. Leg I femur–tarsus/carapace length ratio 4.5. Palpal tibia (Figs. 75–77) 3.6 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (2), and prolateral (4) planes (10 total). Cymbium (Figs. 75–77) with distal scopula. Bulb (Figs. 75–77) sub-spherical, ~0.5 × length of palpal tibia, with sub-terminal embolus. Embolus gently curved, with thin base clearly demarcated from bulb, length ~1.3 × bulb length, with thin tip.

Distribution and remarks.—*Teyl caurinus* has a disjunct distribution relative to other species in the *damsonoides*-group, and is known only from the southern Carnarvon Basin (Western Australia), extending from near Zuytdorp north to approximately Hamelin Pool (Fig. 82). Little else is known of the biology or life history of this species, other than that males have been collected in late autumn and winter.

Teyl danksi sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:5FA838B3-3AA5-4165-AD83-BA97EEE132DF
(Figs. 12, 83–97)

Data coverage.—M-J.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Two Peoples Bay Nature Reserve, Gardner Gully [IBRA_JAF], 35°00′40″S, 118°11′27″E, 22 July 2013, A. Danks (WAM T136877).

Paratypes. AUSTRALIA: *Western Australia*: 1 ♂, Two Peoples Bay Nature Reserve, site MG4, opposite airstrip track [IBRA_JAF], 34°59′23″S, 118°11′38″E, 26 July–2 August 1994, wet pitfall trap, S. Comer (WAM T77003); 2 ♂, same data except Lake Gardner, site MG14 (=LA14), 34°58′19″S, 118°10′30″E (WAM T77007).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, Torndirrup National Park, 2 year burn site [IBRA_WAR], 35°06′S, 117°52′E, 6–13 July 1983, pitfall trap, P. Dyer, J.

Lyon (WAM T153197); 3 ♂, same data except 27 July–3 August 1983 (WAM T153196); 1 ♂, same data except 3–10 August 1983 (WAM T17313); 1 ♂, same data (WAM T17314); 1 ♂, same data (WAM T17315); 1 ♂, same data except 17–24 August 1983 (WAM T16751); 3 ♂, same data except 4 year burn site, 27 July–3 August 1983 (WAM T153199); 1 ♂, same data except 31 August–7 September 1983 (WAM T16764); 1 ♂, same data except 17 year burn site, 20–27 July 1983 (WAM T153198); 1 ♂, same data except 3–10 August 1983 (WAM T17327); 1 ♂, same data (WAM T17328); 1 ♂, same data (WAM T17329); 1 ♂, same data (WAM T17330); 1 juvenile, same data (WAM T17331); 1 ♂, same data except 10–17 August 1983 (WAM T16746); 3 ♂, Torndirrup National Park, 9 km S. of Albany [IBRA_WAR], 35°06′S, 117°52′E, 25 May–9 November 1983, pitfall trap, P. Dyer, J. Lyon (WAM T153201).

Etymology.—This species is named in honor of Alan Danks (formerly of the Department of Conservation and Land Management, Albany Office), in recognition of his commitment to invertebrate conservation in southern Western Australia, and for collecting the holotype specimen of this species.

Diagnosis.—Males of *Teyl danksi* can be distinguished from all other species in the *damsonoides*-group, except *T. faceyi*, *T. loxleyae*, *T. nadineae*, *T. narrikupensis* and *T. undulites*, by the combination of a stout metatarsus I (length/width <10) without spines on the retrolateral face, and the absence of a retrolateral protuberance on the distal tibia I (Figs. 95, 96). They can further be distinguished from males of *T. loxleyae*, *T. nadineae* and *T. narrikupensis* by their smaller size (carapace length of holotype 5.6 mm, compared with >7 mm); from *T. faceyi* by the shape of the embolus, which is relatively straight, as opposed to gradually curving (Figs. 90–92; cf. Figs. 105–107); and from *T. undulites* by the morphology of metatarsus I, which is more strongly bowed proximally (Fig. 96; cf. Fig. 398) (see also Fig. 12 for direct comparisons).

Description (male holotype).—Total length 12.5. Carapace 5.4 long, 5.0 wide. Abdomen 5.3 long, 3.2 wide. Carapace (Fig. 83) dark chocolate-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 86) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.1. Maxillae each with broad field of ca. 75–85 cuspules confined to heel and inner proximal corner (Fig. 87); labium without cuspules. Abdomen (Figs. 84, 89) oval, dark brown-black with purplish tinge dorsally; densely setose. Legs (Figs. 93–96) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia spinose, with one long ventral spine distally (Figs. 94, 95); metatarsus I (Figs. 12, 96) relatively thick (~8 × longer than wide), slightly bowed proximally with rounded, indistinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 5.9, patella 3.0, tibia 4.5, metatarsus 4.9, tarsus 2.6, total length 21.0. Leg I femur–tarsus/carapace length ratio 3.8. Palpal tibia (Figs. 90–92) 3.6 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (2), and prolateral (7) planes (13 total). Cymbium (Figs. 90–92) with distal scopula. Bulb (Figs. 90–92) sub-spherical, ~0.6 × length of palpal tibia, with slightly reflexed embolus. Embolus straight, whip-like, with thin base clearly demarcated from bulb, length ~2 × bulb length, with thin tip.

Distribution and remarks.—*Teyl danksi* is known only from Torndirrup National Park and Two Peoples Bay Nature Reserve, on the far south coast of south-western Western Australia (Fig. 97). Little else is known of the biology or life history of this species, other than that males have been collected in winter.

Teyl faceyi sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:6C118FDE-59AC-4812-9077-51F8E7F48169
(Figs. 12, 98–112)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Durokoppin Nature Reserve, NW. tip site, transect E [IBRA_AVW], 31°24′S, 117°44′E, 4 June–19 July 1990, pitfall trap, B.Y. Main (WAM T147060).

Paratypes. AUSTRALIA: *Western Australia*: 1 ♂, same data as holotype (WAM T147051); 1 ♂, same data except transect G, 20 July–11 August 1990 (WAM T147055); 1 ♂, same data (WAM T147062); 1 ♂, same data (WAM T147063); 1 ♂, same data except transect H, 2–30 July 1991 (WAM T147064); 1 ♂, same data except 8 July 1989, under log (WAM T147059).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, 2 km N. of Bunce Bin, N. of Beacon [ca. junction of Bimbijy & Stone Roads] [IBRA_AVW], 30°11′S, 117°49′E, 28 June–26 July 1985, pitfall trap, B.Y. Main (WAM T146978); 1 ♂, Dajoing Rock [IBRA_AVW], 30°26′S, 118°04′E, 28 June–26 July 1985, pitfall trap, B.Y. Main (WAM T146995); 1 ♂, Quairading Railway Water Supply, west, site QU11 [IBRA_AVW], 32°01′32″S, 117°21′58″E, 20 May–5 October 1998, wet pitfall trap, B. Durrant, CALM Salinity Action Plan Survey (WAM T147441); 1 ♂, Tutanning Nature Reserve, herp pit 8- [IBRA_AVW], 32°32′S, 117°18′E, 4 September 1986, pitfall trap, G.R. Friend (WAM T151625); 1 ♂, same data except pit 4-2, 19 June 1987 (WAM T151628); 1 ♂, same data except pit 21-2, 16 June 1987 (WAM T151627); 1 ♂, same data except pits 19–24, 17 June 1987 (WAM T151629).

Etymology.—This species is named in honor of Albert B. Facey (1894–1982), author of a classic Australian autobiography, *A Fortunate Life* (1981), which documented the early days of European exploration and settlement in the Wheatbelt of Western Australia, where this species is found.

Diagnosis.—Males of *Teyl faceyi* can be distinguished from all other species in the *damsonoides*-group, except *T. danksi*, *T. loxleyae*, *T. nadineae*, *T. narrikupensis* and *T. undulites*, by the combination of a stout metatarsus I (length/width <10) without spines on the retrolateral face, and the absence of a retrolateral protuberance on the distal tibia I (Figs. 110, 111). They can further be distinguished from males of *T. danksi*, *T. loxleyae*, *T. nadineae*, *T. narrikupensis* and *T. undulites* by the shape of the embolus, which is strongly and evenly curved along its entire length; and by the shape of the cymbium, which is relatively short and wide (Figs. 105–107; cf. Figs. 90–92, 211–213, 286–288, 301–303, 392–394).

Description (male holotype).—Total length 13.84. Carapace 5.3 long, 4.5 wide. Abdomen 6.1 long, 3.3 wide. Carapace (Fig. 98) dark chocolate-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 101) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~0.9. Maxillae each with thin field of ca. 35–45 cuspules confined to heel and inner proximal corner (Fig. 102); labium without cuspules. Abdomen (Figs. 99, 104) oval, light brown with beige, mottled chevrons; setose. Legs (Figs. 108–111) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia spinose, with three long ventral spines distally (Figs. 109, 110); metatarsus I (Figs. 12, 111) relatively thick (~8 × longer than wide), slightly bowed proximally with indistinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 6.2,

patella 2.9, tibia 5.0, metatarsus 4.8, tarsus 3.5, total length 22.2. Leg I femur–tarsus/carapace length ratio 4.2. Palpal tibia (Figs. 105–107) 2.9 × longer than wide, with porrect macrosetae on retrolateral (9), ventral (4), and prolateral (5) planes (18 total). Cymbium (Figs. 105–107) with distal scopula. Bulb (Figs. 105–107) sub-spherical, ~0.6 × length of palpal tibia, with reflexed embolus. Embolus gently curving, whip-like, with thin base clearly demarcated from bulb, length ~1.5 × bulb length, with thin tip.

Distribution and remarks.—*Teyl faceyi* has a fairly widespread distribution through the central Avon Wheatbelt bioregion of south-western Western Australia, extending from Tutanning Nature Reserve north to approximately Beacon (Fig. 112). However, this extent of occurrence is likely to be an underestimate based on limited collection records. Little else is known of the biology or life history of this species, other than that males have been collected in winter (most specimens) and spring.

Teyl howensis sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:807809B9-C850-4DCC-BA3D-61597958562D
(Figs. 4, 8, 12, 113–137)

Data coverage.—M-F.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: West Cape Howe [National Park], Lake William, heath site [IBRA_WAR], 35°05′S, 117°36′E, 21 March–6 April 1985, pitfall trap, B.Y. Main (WAM T151092).

Paratypes. AUSTRALIA: *Western Australia*: 1 ♀, West Cape Howe National Park, Lake William, north shore [IBRA_WAR], 35°05′04″S, 117°36′30″E, 28 November 2014, hand collected from burrow, M.G. Rix, M.A. Castalanelli, M.S. Harvey (WAM T134903); 1 ♂, West Cape Howe [National Park], Lake William [IBRA_WAR], 35°05′S, 117°36′E, 23 September–13 October 1984, pitfall trap, B.Y. Main (WAM T147087); 1 ♂, same data (WAM T147088); 1 ♂, same data (WAM T147083); 1 ♂, same data except 21 March–6 April 1985 (WAM T147080); 2 ♂, same data except 6–10 April 1985 (WAM T147078); 1 ♂, same data (WAM T147079); 1 ♂, same data except 10–26 April 1985 (WAM T147086); 1 ♂, same data except 10 April–25 May 1985 (WAM T147084); 6 ♂, same data except 26 April–25 May 1985 (WAM T147082).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, West Cape Howe [National Park] [no specific locality] [IBRA_WAR], 19 May–14 June 1987, pitfall trap, B.Y. Main (WAM T147074); 4 ♂, same data except 26 April–25 May 1985 (WAM T147075); 1 ♂, same data except 21 March–6 April 1985 (WAM T147077); 2 ♂, same data except 10–26 April 1985 (WAM T147076); 1 ♂, same data except pitfall 7, 16 April–12 May 1987 (WAM T147073).

Etymology.—The specific epithet is a reference to the type (and only known) locality of this species, at West Cape Howe National Park (Western Australia).

Diagnosis.—Males of *Teyl howensis* can be distinguished from all other species in the *damsonoides*-group, except *T. melindae*, by the presence of a stout metatarsus I (length/width <10) with multiple spines on the retrolateral face (Fig. 126). They can further be distinguished from males of *T. melindae* by the shape of the embolus, which is shorter relative to the length of the palpal bulb (embolus ~1.5 × bulb length, compared with ~2 ×) (Figs. 120–122; cf. Figs. 236–238).

Description (male holotype).—Total length 16.37. Carapace 6 long, 5.3 wide. Abdomen 6.8 long, 3.9 wide. Carapace (Fig. 113) dark tan-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 116) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 135–145 cuspules confined to heel and inner proximal corner (Fig. 117); labium without cuspules. Abdomen (Figs. 114, 119) oval, grey-brown; densely setose. Legs (Figs. 123–126) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia spinose, with a few slightly longer ventral spines distally (Figs. 124, 125); metatarsus I (Figs. 12, 126) relatively thick (~8 × longer than wide), slightly bowed proximally with indistinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 5.8, patella 3.0, tibia 4.7, metatarsus 5.1, tarsus 3.1, total length 21.6. Leg I femur–tarsus/carapace length ratio 3.6. Palpal tibia (Figs. 120–122) 3.0 × longer than wide, with porrect macrosetae on dorsal (2), retrolateral (3), ventral (3), and prolateral (7) planes (15 total). Cymbium (Figs. 120–122) with distal scopula. Bulb (Figs. 120–122) sub-spherical, ~0.6 × length of palpal tibia, with subdistal embolus. Embolus gently curving, with thin base clearly demarcated from bulb, length ~1.8 × bulb length, with thin tip.

Description (female WAM T134903).—Total length 17.9. Carapace 6.0 long, 5.5 wide. Abdomen 8.8 long, 6.2 wide. Carapace (Fig. 127) dark red-brown, largely glabrous; with fringe of anteriorly curved, porrect black setae, less conspicuous than in male; fovea procurved. Eye group (Fig. 130) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 100–110 cuspules confined to heel and inner proximal corner (Fig. 131); labium without cuspules. Abdomen (Figs. 128, 133) oval, dark brown with purple tinge, setose. Legs (Figs. 134, 135) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 5.2, patella 3.1, tibia 3.7, metatarsus 3.6, tarsus 2.2, total length 17.7. Leg I femur–tarsus/carapace length ratio 2.9. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 3 (+1 empty socket) PL; metatarsus 4RL, 6PL. Spermathecae (Fig. 136) parallel, length/width ~6.5, without distinct crowns.

Distribution and remarks.—*Teyl howensis* is known only from West Cape Howe National Park, on the far south coast of south-western Western Australia (Fig. 137). At Lake William, the spiders built open burrows with a short entrance 'collar' (Fig. 8), and were found in sandy, mesic heathland habitats (MGR, MSH pers. obs.). Little else is known of the biology or life history of this species, other than that males have been collected in autumn (most specimens), winter and spring.

Teyl humphreysi sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:B786DAC1-DBE9-4888-87B4-30BD5BAE55F9
(Figs. 12, 138–152)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Woodline, site WLR8 [IBRA_COO], 31°53′S, 122°28′E, 7–12 August 1980, pitfall trap, samphire shrubland, W.F. Humphreys et al., WAM Goldfields Survey (WAM T16333).

Etymology.—This species is named in honor of Bill Humphreys (formerly of the WAM), in recognition of his contributions to the 'Biological Survey of the Eastern Goldfields of Western Australia' (Biological Surveys Committee 1984), on which the holotype (and only known) specimen of this species was collected.

Diagnosis.—Males of *Teyl humphreysi* can be distinguished from all other species in the *damsonoides*-group by the

morphology of metatarsus I, which is highly elongate (length/width >10), in combination with the shape of the embolus, which is elongate (embolus ~1.75 × bulb length) and reflexed (Figs. 145–147; cf. Figs. 45–47, 75–77, 160–162, 185–187, 261–263, 326–328).

Description (male holotype).—Total length 16.9. Carapace 7.7 long, 6.9 wide. Abdomen 6.8 long, 4.3 wide. Carapace (Fig. 138) red-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 141) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.1. Maxillae each with broad field of ca. 90–100 cuspules confined to heel and inner proximal corner (Fig. 142); labium without cuspules. Abdomen (Figs. 139, 144) oval, light brown, densely setose. Legs (Figs. 148–151) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three long ventral spines distally (Figs. 149, 150); metatarsus I (Figs. 12, 151) thin (~11 × longer than wide), bowed proximally with rounded but distinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 8.7, patella 4.4, tibia 6.8, metatarsus 7.9, tarsus 3.9, total length 31.8. Leg I femur–tarsus/carapace length ratio 4.1. Palpal tibia (Figs. 145–147) 3.2 × longer than wide, with porrect macrosetae on dorsal (2), retrolateral (3), ventral (3), and prolateral (6) planes (14 total). Cymbium (Figs. 145–147) with distal scopula. Bulb (Figs. 145–147) sub-spherical, ~0.6 × length of palpal tibia, with embolus sub-terminal but slightly recurved. Embolus roughly straight, thin base not clearly demarcated from bulb, length ~1.8 × bulb length, with thin tip.

Distribution and remarks.—*Teyl humphreysi* has a disjunct distribution relative to other species in the *damsonoides*-group, and is known only from Woodline, near the Fraser Range in the eastern Coolgardie bioregion of inland Western Australia (Fig. 152). Little else is known of the biology or life history of this species, other than that the holotype male was collected in winter.

Teyl ignicans sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:13014952-792B-4956-8CA6-9559C387CB2B
(Figs. 5, 10, 12, 153–177)

Teyl 'MYG636': Rix et al., 2020a: 684, 686.

Data coverage.—M-F-DNA$^{F\ [tentatively\ linked]}$.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Stirling Range Caravan Park [IBRA_ESP], 34°18′55″S, 118°11′14″E, 26 April 1996, dead in swimming pool, M.S. Harvey, J.M. Waldock, B.Y. Main (WAM T44278).

Paratypes. AUSTRALIA: *Western Australia*: 1 ♂, same data as holotype except 26–27 April 1996 (WAM T44279); 1 ♂, Camel Lake Nature Reserve, east, site ST7 [IBRA_ESP], 34°15′39″S, 117°58′44″E, 5 October 1999–1 November 2000, wet pitfall trap, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T146969); 1 ♂, Camel Lake Nature Reserve, south, site ST4 [IBRA_ESP], 34°17′34″S, 117°58′51″E, 15 October 1999–25 November 2000, B. Durrant, CALM Salinity Action Plan Survey (WAM T146966).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, Chinocup Dam Nature Reserve, site DU13 [IBRA_MAL], 33°32′31″S, 118°25′15″E, 15 October 1999–1 November 2000, wet pitfall trap, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T146963); 1 ♂, Hopkins Road, west, SE. of Kulin, site KN2 [IBRA_MAL], 32°43′15″S, 118°16′59″E, 15 May 1998–22 September 1998, wet pitfall trap, N.A. Guthrie, CALM Salinity Action Plan Survey (WAM T146967); 3 ♂, N. end of Rasmussen Road, 25 km NNE. of Nyabing, site DU10 [IBRA_MAL], 33°20′10″S, 118°15′34″E, 15 October 1999–1 November 2000, wet pitfall traps, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T147157); 1 ♂, same data except site DU11, 33°20′33″S, 118°15′34″E (WAM T146965); 1 ♂, Tambellup [IBRA_AVW], 34°03′S, 117°39′E, June 1953, R. Mawsen (WAM T3727).

Other material examined (tentatively linked).—AUSTRALIA: *Western Australia*: 1 ♀, Stirling Range National Park, Isongerup Track, site 1 [IBRA_ESP], 34°22′49″S, 118°17′11″E, 25 March 2019, hand collected from burrow, M.G. Rix, M.S. Harvey (WAM T147594^{DNA}); 1 ♀, same data except Isongerup Track, 34°22′47″S, 118°17′09″E (WAM T147598^{DNA}); 1 ♀, same data except 34°22′47″S, 118°17′10″E (QMB S111454^{DNA}); 1 ♀, Stirling Range National Park, flats south of Pyungoorup Peak [IBRA_ESP], 34°22'18″S, 118°19'49″E, 28 March 2019, 309 m, hand collected from burrow, M.G. Rix, M.S. Harvey (WAM T147628^{DNA}); 1 ♀, same data (QMB S111455^{DNA}).

Etymology.—The specific epithet is derived from the Latin *ignicans* (adjective: 'flaming'), in reference to the red and black coloration of this species, which is reminiscent of fire.

Diagnosis.—Males of *Teyl ignicans* can be distinguished from all other species in the *damsonoides*-group, except *T. damsonoides*, *T. kwonganensis* and *T. regalis*, by the morphology of metatarsus I, which is highly elongate (length/width >10) with a prominent, sharp median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end (Fig. 166) (see also Fig. 12 for direct comparisons). They can further be distinguished from males of *T. damsonoides* by the shape of the embolus, which is narrower and positioned sub-terminally (Figs. 160–162; cf. Figs. 20–22); from *T. kwonganensis* by the shape of the embolus, which is less elongate (Figs. 160–162; cf. Figs. 185–187); and from *T. regalis* by the shape of the palpal tibia, which is more elongate (Figs. 160–162; cf. Figs. 326–328).

Description (male holotype).—Total length 19.7. Carapace 7.8 long, 6.9 wide. Abdomen (damaged) 7.9 long, 5.6 wide. Carapace (Fig. 153) orange-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 156) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 135–150 cuspules confined to heel and inner proximal corner (Fig. 157); labium without cuspules. Abdomen (Figs. 154, 159) damaged due to preservation, grey dorsally. Legs (Figs. 163–166) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three long ventral spines sub-distally (Figs. 164, 165); metatarsus I (Figs. 12, 166) thin (~12 × longer than wide), bowed proximally with distinct, sharp median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 8.1, patella 4.0, tibia 6.4, metatarsus 8.0, tarsus 4.3, total length 30.1. Leg I femur–tarsus/carapace length ratio 4.0. Palpal tibia (Figs. 160–162) 2.7 × longer than wide, with porrect macrosetae on dorsal (2), retrolateral (3), ventral (2), and prolateral (6) planes (13 total). Cymbium (Figs. 160–162) with distal scopula. Bulb (Figs. 160–162) sub-spherical, ~0.6 × length of palpal tibia, with sub-terminal embolus. Embolus gently curving, thin, with thin base clearly demarcated from bulb, length ~1.2 × bulb length, with very slightly widened tip.

Description (tentatively linked female WAM T147594).—Total length 21.8. Carapace 8.1 long, 7.1 wide. Abdomen 8.7 long,

6.1 wide. Carapace (Fig. 167) tan-brown, largely glabrous; with fringe of anteriorly curved, porrect black setae, less conspicuous than in male; fovea slightly procurved. Eye group (Fig. 170) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with relatively thin field of ca. 100–130 cuspules confined to heel and inner proximal corner (Fig. 171); labium without cuspules. Abdomen (Figs. 168, 173) oval, dark brown with purple tinge, setose. Legs (Figs. 174, 175) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 5.2, patella 3.1, tibia 3.7, metatarsus 3.6, tarsus 2.2, total length 17.7. Leg I femur–tarsus/carapace length ratio 2.9. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 4 PL; metatarsus 4RL, 6PL. Spermathecae (Fig. 176) parallel, length/width ~4.5, without distinct crowns.

Distribution and remarks.—*Teyl ignicans* (previously 'MYG636' [DNA] and 'MYG656' [♂ morphology]; e.g. see Rix et al. 2020a) has a fairly widespread distribution through the western Mallee, western Esperance Plains and southern Avon Wheatbelt bioregions of south-western Western Australia, extending from the Stirling Range north to approximately Kulin (Fig. 177). However, this extent of occurrence is likely to be an underestimate based on limited collection records. The sequenced female specimens from Stirling Range National Park are here tentatively linked to the holotype and other males based on geographic proximity, body size, habitat and the close sister-species relationship with *T. meridionalis* (Fig. 10). On the flat country at Stirling Range National Park the spiders built open burrows on flat ground with no (or only a very thin) internal silk lining, and were found in mallee woodland habitats, where they were not uncommon (MGR, MSH pers. obs.). Little else is known of the biology or life history of this species, other than that males have been collected in late autumn.

Teyl kwonganensis sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:1E7A6032-5EFF-4A6E-9C7A-EAE8EEB758F7
(Figs. 12, 178–192)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Eneabba, AMC Minesite [IBRA_GES], 29°49′S, 115°16′E, 23 November 1987, hand collected, R.P. McMillan (WAM T34296).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, Alexander Morrison National Park, S. of Coorow-Greenhead Road, site DN10 [IBRA_GES], 30°04′15″S, 115°34′07″E, 15 October 1999–1 November 2000, wet pitfall trap, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T147402).

Etymology.—The specific epithet is a reference to the occurrence of this species in the 'kwongan' heathlands of south-western Australia's northern sandplains.

Diagnosis.—Males of *Teyl kwonganensis* can be distinguished from all other species in the *damsonoides*-group, except *T. damsonoides*, *T. ignicans* and *T. regalis*, by the morphology of metatarsus I, which is highly elongate (length/width >10) with a prominent, sharp median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end (Fig. 191) (see also Fig. 12 for direct comparisons). They can further be distinguished from males of *T. damsonoides* by the shape of the embolus, which is narrower and positioned sub-terminally (Figs. 185–187; cf. Figs. 20–22); from *T. ignicans* by the shape of the embolus, which is more elongate (Figs. 185–187; cf. Figs. 160–162); and from *T. regalis* by the shape of the palpal tibia, which is more elongate (Figs. 185–185; cf. Figs. 326–328).

Description (male holotype).—Total length 17.5. Carapace 8.0 long, 7.0 wide. Abdomen 7.0 long, 4.5 wide. Carapace (Fig. 178) red-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 181) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 110–120 cuspules confined to heel and inner proximal corner (Fig. 182); labium without cuspules. Abdomen (Figs. 179, 184) oval, dark grey-brown; densely setose. Legs (Figs. 188–191) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three long ventral spines sub-distally (Figs. 189, 190); metatarsus I (Figs. 12, 191) thin (~12 × longer than wide), bowed proximally with distinct but rounded median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 7.8, patella 3.8, tibia 5.9, metatarsus 7.6, tarsus 4.1, total length 29.1. Leg I femur–tarsus/carapace length ratio 3.7. Palpal tibia (Figs. 185–187) 3.0 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (2), ventral (3), and prolateral (5) planes (11 total). Cymbium (Figs. 185–187) with distal scopula. Bulb (Figs. 185–187) sub-spherical, ~0.6 × length of palpal tibia, with sub-terminal embolus. Embolus with bend proximally, then straight, thin, with base well demarcated from bulb, length ~1.4 × bulb length, with thin tip.

Distribution and remarks.—*Teyl kwonganensis* has a disjunct distribution relative to other species in the *damsonoides*-group, and is known only from the southern Geraldton Sandplains bioregion of south-western Western Australia, at Eneabba and Alexander Morrison National Park (Fig. 192). Little else is known of the biology or life history of this species, other than that the holotype male was collected in late spring.

Teyl lengae sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:8B5D1E8A-72DC-4905-B192-3D8EF6ACED5B
(Figs. 10, 193–203)

Teyl 'MYG454': Harvey et al., 2018: 418, figs. 3–5. Huey et al., 2019: 353, fig. 3. Rix et al., 2020a: 684.

Data coverage.—F-DNA^{F}.

Type material.—*Holotype female*. AUSTRALIA: *Western Australia*: Ravensthorpe Range South, site WAM17 [IBRA_ESP], 33°40′35″S, 120°17′59″E, 18 May 2007, 81 m, hand collected from burrow, M. Leng, M. Moir (WAM T80899^{DNA}).

Etymology.—This species is named in honor of Mei Chen Leng (formerly of the WAM), in recognition of her contributions to the South Coast Regional Initiative Planning Team's 'SCRIPT' Project (e.g. Moir et al. 2009), and for collecting the holotype (and only known) specimen of this species.

Diagnosis.—Females of *Teyl lengae* can be distinguished from all other females described in this study, except *T. safferae*, by the shape of the spermathecae, which are strongly curving from an antero-medial angle at the base to an antero-lateral angle at the crown (Fig. 202). They can further be distinguished from females of *T. safferae* by the shape of the spermathecae, which are more elongate (length/width in holotype ~3.5, compared to ~2.6 in *T. safferae*). Males are unknown, and sequence data will be required in future to link the male of *T. lengae* with the female holotype.

Description (female holotype).—Total length 26.8. Carapace 9.5 long, 8.2 wide. Abdomen 12.3 long, 7.9 wide. Carapace (Fig. 193) tan-brown, largely glabrous; with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 196) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 165–175 cuspules confined to heel and inner proximal corner (Fig. 197); labium without cuspules. Abdomen (Figs. 194, 199) oval, grey-brown dorsally with some sections bleached due to preservation, setose. Legs (Figs. 200, 201) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 7.3, patella 4.4, tibia 4.9, metatarsus 4.8, tarsus 2.9, total length 24.3. Leg I femur–tarsus/carapace length ratio 2.6. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 5 PL; metatarsus 4RL, 7PL. Spermathecae (Fig. 202) strongly curving from antero-medial angle at base to antero-lateral angle at crown, length/width ~3.5, with distinct crowns wider than stems.

Distribution and remarks.—*Teyl lengae* (previously 'MYG454'; e.g. see Rix et al. 2020a) is known only from the Ravensthorpe Range, in the central Esperance Plains bioregion of southern Western Australia (Fig. 203). Nothing else is known of the biology or life history of this species, and males are unknown.

Teyl loxleyae sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:05486BFE-4B0E-4ABA-A009-F247C36EF42A
(Figs. 2, 6, 9, 10, 12, 204–228)

Teyl 'MYG459': Harvey et al., 2018: 418, figs. 3–5. Huey et al., 2019: 353, fig. 3. Rix et al., 2020a: 684.

Data coverage.—M-F-J-DNA$^{J\ [tentatively\ linked]}$.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Two Peoples Bay Nature Reserve, junction of Valliant Road and firebreak track, site TBP9 [IBRA_JAF], 34°58′25″S, 118°11′26″E, 12 August 2015, dry pitfall trap, S. Comer (WAM T136022).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, reserve S. of Surrey Downs Road, ca. 2.7 km NE. of Porongurup [IBRA_JAF], 34°39′29″S, 117°55′21″E, 210 m, 12 October 2020, in leaf litter, jarrah/marri woodland, J. Smallman, L. Fedec (WAM T151674).

Other material examined (tentatively linked).—AUSTRALIA: *Western Australia*: 1 ♀, Two Peoples Bay Nature Reserve, Wave Sign Gully [IBRA_JAF], 35°00′05″S, 118°10′50″E, 21 July 2013, A. Danks (WAM T143507); 1 ♀, Two Peoples Bay Nature Reserve, Little Beach, gully [IBRA_JAF], 34°58′32″S, 118°12′00″E, 11 April 2017, hand collected from burrow, M.G. Rix, M.S. Harvey, J.G. Cosgrove (WAM T143011); 1 ♀, Two Peoples Bay Nature Reserve, Mount Gardner [IBRA_JAF], 35°00′S, 118°11′E, 2 August 2003, A. Danks (WAM T56758); 1 juvenile, same data except site 15, 30 November 2006, M.L. Moir, K.E.C. Brennan (WAM T78556^{DNA}).

Etymology.—This species is named in honor of Loxley Fedec, who collected a male at Surrey Downs Reserve (Western Australia), and who has promoted the conservation of fauna and flora in the Porongurup region.

Diagnosis.—Males of *Teyl loxleyae* can be distinguished from all other species in the *damsonoides*-group, except *T. danksi*, *T. faceyi*, *T. nadineae*, *T. narrikupensis* and *T. undulites*, by the combination of a stout metatarsus I (length/width <10) without spines on the retrolateral face, and the absence of a retrolateral protuberance on the distal tibia I (Figs. 216, 217). They can further be distinguished from males of *T. danksi*, *T. faceyi* and *T. undulites* by their larger size (carapace length of holotype 7.8 mm, compared with <6 mm); and from *T. nadineae* and *T. narrikupensis* by the morphology of metatarsus I, which is less strongly bowed proximally (Fig. 217; cf. Figs. 292, 307) (see also Fig. 12 for direct comparisons).

Description (male holotype).—Total length 16.8. Carapace 7.8 long, 6.9 wide. Abdomen 6.8 long, 4.0 wide. Carapace (Fig. 204) dark chocolate-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 207) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 120–130 cuspules confined to heel and inner proximal corner (Fig. 208); labium without cuspules. Abdomen (Figs. 205, 210) oval, dark brown dorsally, densely setose. Legs (Figs. 214–217) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three long ventral spines distally (Figs. 215, 216); metatarsus I (Figs. 12, 217) relatively thick (~9 × longer than wide), slightly bowed proximally with rounded, fairly indistinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 7.3, patella 3.5, tibia 5.5, metatarsus 6.4, tarsus 3.5, total length 26.3. Leg I femur–tarsus/carapace length ratio 3.4. Palpal tibia (Figs. 211–213) 3.2 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (2 + 1 empty socket), ventral (2), and prolateral (5) planes (10 total, 11 including sockets). Cymbium (Figs. 211–213) with distal scopula. Bulb (Figs. 211–213) sub-spherical, ~0.6 × length of palpal tibia, with slightly reflexed embolus. Embolus slightly sinuous, whip-like, with thin base clearly demarcated from bulb, length ~1.5 × bulb length, with slightly widened tip.

Description (tentatively linked female WAM T143507).—Total length 22.8. Carapace 7.3 long, 7.3 wide. Abdomen 11.4 long, 8.2 wide. Carapace (Fig. 218) dark red-brown, largely glabrous; with fringe of anteriorly curved, porrect black setae, less conspicuous than in male; fovea slightly procurved. Eye group (Fig. 221) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 130–150 cuspules confined to heel and inner proximal corner (Fig. 222); labium without cuspules. Abdomen (Figs. 219, 224) oval, dark brown with slight purple tinge, setose. Legs (Figs. 225, 226) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 6.4, patella 3.7, tibia 4.5, metatarsus 4.5, tarsus 2.7, total length 21.7. Leg I femur–tarsus/carapace length ratio 3.0. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 3 (+1 empty socket) PL; metatarsus 5RL, 4PL. Spermathecae (Fig. 227) almost parallel, diverging very slightly, straight, length/width ~5.8, with slightly widened, but relatively indistinct crowns.

Distribution and remarks.—*Teyl loxleyae* (previously 'MYG459'; e.g. see Rix et al. 2020a) is known only from Two Peoples Bay Nature Reserve and north-east of Porongurup, near the south coast of south-western Western Australia (Fig. 228). Females and a sequenced juvenile specimen from Two Peoples Bay have here been tentatively linked to the co-occurring holotype male based on their body size and distribution. These tentatively linked specimens built distinctive open, turreted burrows incorporating sand and leaf litter debris into the turret structure (similar to *T. meridionalis*) (Fig. 9), and were found in sheltered sandy gullies and mesic heathland habitats around the base of Mount Gardner at Two Peoples Bay (MGR, MSH pers. obs.). Little else is known of the biology or life history of this species, other than that males have been collected in late winter and spring.

Teyl melindae sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:20C7CF30-1525-47C2-9D06-87CC346C0C13
(Figs. 10, 12, 229–253)

Teyl 'MYG356': Harvey et al., 2018: 418, figs. 3–5. Huey et al., 2019: 353, fig. 3. Rix et al., 2020a: 684.

Data coverage.—M-F-DNA$^{F\ [tentatively\ linked]}$.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Mount Lindesay [IBRA_JAF], 34°50′30″S, 117°18′21″E, 14 June 1996, 410 m, wet pitfall trap, S. Barrett (WAM T143094).

Paratypes. AUSTRALIA: *Western Australia*: 3 ♂, same data as holotype (WAM T56736); 1 ♂, same data except site 208, 6 June 1996, opportunistic collection (WAM T 151045); 1 ♂, same data (WAM T151046); 1 ♀, Mount Lindesay National Park, Mount Lindesay [IBRA_JAF], 34°50′S, 117°19′E, 6 May 2005, hand collected from burrow, B.Y. Main (WAM T145321); 1 ♀, same data (WAM T145322); 1 ♀, same data (WAM T145323); 1 ♀, same data (WAM T145324).

Other material examined (tentatively linked).—AUSTRALIA: *Western Australia*: 1 ♀, Mount Frankland National Park, Mount Roe, site 1 [IBRA_JAF], 34°42′21″S, 116°48′02″E, 28 October 2006, hand collected from burrow, M.L. Moir, A. Sampey (WAM T78519^{DNA}).

Etymology.—This species is named in honor of Melinda Moir (University of Western Australia), in recognition of her contributions to the South Coast Regional Initiative Planning Team's 'SCRIPT' Project (e.g. Moir et al. 2009).

Diagnosis.—Males of *Teyl melindae* can be distinguished from all other species in the *damsonoides*-group, except *T. howensis*, by the presence of a stout metatarsus I (length/width <10) with multiple spines on the retrolateral face (Fig. 242). They can further be distinguished from males of *T. howensis* by the shape of the embolus, which is longer relative to the length of the palpal bulb (embolus ~2 × bulb length, compared with ~1.5 ×) (Figs. 236–238; cf. Figs. 120–122).

Description (male holotype).—Total length 14.09. Carapace 5.7 long, 5.2 wide. Abdomen 5.7 long, 3.6 wide. Carapace (Fig. 229) dark red-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 232) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.1. Maxillae each with broad field of ca. 70–80 cuspules confined to heel and inner proximal corner (Fig. 233); labium without cuspules. Abdomen (Figs. 230, 235) oval, grey-brown; densely setose. Legs (Figs. 239–242) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia spinose, one slightly longer ventral spine distally (Figs. 240, 241); metatarsus I (Figs. 12, 242) relatively thick (~8 × longer than wide), slightly bowed proximally with indistinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 5.6, patella 2.8, tibia 4.5, metatarsus 4.9, tarsus 3.0, total length 20.8. Leg I femur–tarsus/carapace length ratio 3.7. Palpal tibia (Figs. 236–238) 3.1× longer than wide, with porrect macrosetae on dorsal (2), retrolateral (3), ventral (2), and prolateral (7) planes (14 total). Cymbium (Figs. 236–238) with distal scopula. Bulb (Figs. 236–238) sub-spherical, ~0.6 × length of palpal tibia, with sub-distal embolus. Embolus gently curving, with thin base clearly demarcated from bulb, length ~2.0 × bulb length, with thin tip.

Description (female paratype WAM T145322).—Total length 22.4. Carapace 8.4 long, 7.0 wide. Abdomen 10.5 long, 6.7 wide. Carapace (Fig. 243) dark red-brown, largely glabrous; with fringe of anteriorly curved, porrect black setae, less conspicuous than in male; fovea procurved. Eye group (Fig. 246) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 130–150 cuspules confined to heel and inner proximal corner (Fig. 247); labium without cuspules. Abdomen (Figs. 244, 249) oval, dark brown with slight purple tinge, setose. Legs (Figs. 250, 251) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 6.1, patella 3.3, tibia 4.2, metatarsus 4.0, tarsus 2.2, total length 19.7. Leg I femur–tarsus/carapace length ratio 2.4. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 5 PL; metatarsus 5RL, 5PL. Spermathecae (Fig. 252) almost parallel, curving very slightly from antero-medial angle at base to antero-lateral angle at crown, length/width ~5.7, without distinct crowns.

Distribution and remarks.—*Teyl melindae* (previously 'MYG356'; e.g. see Rix et al. 2020a) is known only from mesic mountainous habitats in the far southern Jarrah Forest bioregion of south-western Western Australia, at Mount Lindesay and likely also Mount Frankland (Fig. 253). The sequenced female from Mount Frankland has here been tentatively linked to the males and females from Mount Lindesay based on morphology. Little else is known of the biology or life history of this species, other than that males have been collected in mid-winter.

Teyl meridionalis sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:FA757A42-E54D-403C-91C3-014F59273442
(Figs. 3, 10, 12, 254–278)

Teyl 'MYG354': Harvey et al., 2018: 418, figs. 3–5. Huey et al., 2019: 353, fig. 3. Rix et al., 2020a: 684, 686.

Data coverage.—M-F-J-DNA$^{F\text{-}J\ [tentatively\ linked]}$.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Fitzgerald River National Park, 2.1 km WNW. of Twertup Field Study Centre (29B) [IBRA_ESP], 34°00′57″S, 119°21′06″E, November 1996, wet pitfall trap, A. Sanders (WAM T44281).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, Boondadup River [Fitzgerald River National Park] [IBRA_ESP], 34°12′S, 119°31′E, 9 August 1970, W.H. Butler (WAM T28428); 1 ♂, Fitzgerald River National Park, 6.8 km WSW. of Annie Peak, Eyre Range (51A) [IBRA_ESP], 33°52′50″S, 119°54′45″E, 1 November 1996, wet pitfall trap, A. Sanders (WAM T42345); 1 ♂, Fitzgerald River National Park, off Pabelup Drive, site P8A [IBRA_ESP], 34°11'00″S, 119°25′15″E, 19–24 September 1985, *Banksia baxteri/B. coccinea* on deep sand, A. Chapman (WAM T47484).

Other material examined (tentatively linked).—AUSTRALIA: *Western Australia*: 1 ♀, Cape Riche [IBRA_ESP], 34°39′22″S, 118°41′26″E, 28 March 2019, 81 m, hand collected from burrow, M.G. Rix, M.S. Harvey (WAM T147625^{DNA}); 1 juvenile, same data (WAM T147618^{DNA}); 1 juvenile, same data (WAM T147624^{DNA}); 1 ♀, Waychinicup National Park, site 3 [IBRA_ESP], 34°54′12″S, 118°23′59″E, 24 October 2006, hand collected from burrow, M.L. Moir, A. Sampey (WAM T78514^{DNA}).

Etymology.—The specific epithet is derived from the Latin *meridionalis* (adjective: 'southern'), in reference to the distribution of this species in the far south of Western Australia.

Diagnosis.—Males of *Teyl meridionalis* can be distinguished from all other species in the *damsonoides*-group, except *T. humphreysi* and *T. beaufortia*, by the morphology of metatarsus I,

which is highly elongate (length/width >10) with a relatively rounded, less prominent median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end (Fig. 267) (see also Fig. 12 for direct comparisons). They can further be distinguished from males of *T. humphreysi* by the shape of the embolus, which is shorter and not reflexed (Figs. 261–263; cf. Figs. 145–147); and from *T. beaufortia* by the spination of the metatarsus, which does not have spines on the retrolateral surface and has just two spines on the ventral surface (Fig. 267; cf. Fig. 51).

Description (male holotype).—Total length 18.3. Carapace 7.8 long, 6.5 wide. Abdomen (damaged) 7.7 long, 4.6 wide. Carapace (Fig. 254) red-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 257) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 150–160 cuspules confined to heel and inner proximal corner (Fig. 258); labium without cuspules. Abdomen (Figs. 255, 260) oval, chocolate-brown; densely setose. Legs (Figs. 264–267) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three long ventral spines sub-distally (Figs. 265, 266); metatarsus I (Figs. 12, 267) thin (~12 × longer than wide), bowed proximally with distinct but rounded median retrolateral protuberance positioned ~0.35 × length of metatarsus from proximal end. Leg I: femur 7.7, patella 3.7, tibia 6.2, metatarsus 7.4, tarsus 4.4, total length 29.5. Leg I femur–tarsus/carapace length ratio 3.8. Palpal tibia (Figs. 261–263) 2.7 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (5), and prolateral (6) planes (15 total). Cymbium (Figs. 261–263) with distal scopula. Bulb (Figs. 261–263) sub-spherical, ~0.6 × length of palpal tibia, with sub-terminal embolus. Embolus gently curving, relatively thin, with base well demarcated from bulb, length ~1.4 × bulb length, with very slightly widened tip.

Description (tentatively linked female WAM T78514).—Total length 20.0. Carapace 6.8 long, 5.6 wide. Abdomen 9.6 long, 7.3 wide. Carapace (Fig. 268) dark red-brown, largely glabrous; with fringe of anteriorly curved, porrect black setae, less conspicuous than in male; fovea slightly procurved. Eye group (Fig. 271) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 140–160 cuspules confined to heel and inner proximal corner (Fig. 272); labium without cuspules. Abdomen (Figs. 269, 274) oval, dark brown with slight purple tinge, setose. Legs (Figs. 275, 276) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 5.4, patella 3.2, tibia 3.9, metatarsus 3.8, tarsus 2.2, total length 18.5. Leg I femur–tarsus/carapace length ratio 2.7. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 4PL; metatarsus 4RL, 5PL. Spermathecae (Fig. 277) slightly asymmetrical (perhaps due to preservation), left spermatheca relatively straight, right spermatheca curving slightly, length/width ~.08, without distinct crowns.

Distribution and remarks.—*Teyl meridionalis* (previously 'MYG354'; e.g. see Rix et al. 2020a) is known from sandy heathland habitats in southern Western Australia, in the Fitzgerald River National Park and likely also Waychinicup National Park and Cape Riche (Fig. 278). The female and juvenile sequenced specimens from Cape Riche and Waychinicup are here tentatively linked to the males from Fitzgerald River based on geographic proximity, body size, habitat and the close sister-species relationship with *T. ignicans* (Fig. 10). At Cape Riche, the spiders built distinctive open, turreted burrows incorporating sand and leaf litter debris into the turret structure (similar to *T. turrificus*) (MGR, MSH pers. obs.), in contrast to the unmodified burrow structure of *T. ignicans*. Little else is known of the biology or life history of this species, other than that males have been collected in late winter and spring.

Teyl nadineae sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:26AD0A18-D2AE-4B3C-B015-44E1E0BB60F2
(Figs. 12, 279–293)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Pingaring-Varley Road, south, Dragon Rocks Nature Reserve, site HY6 [IBRA_MAL], 32°46′10″S, 119°00′32″E, 20 May–22 September 1998, wet pitfall trap, N. Guthrie, CALM Salinity Action Plan Survey (WAM T147493).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, E. of Fields Road, 51 km NW. of Grass Patch, site GP6 [IBRA_MAL], 33°06′46″S, 121°11′45″E, 15 October 1999–1 November 2000, wet pitfall trap, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T147492); 1 ♂, Fields Nature Reserve, S. of Griffiths Road, ca. 17 km SE. of Scaddan, site GP12 [IBRA_MAL], 33°28′31″S, 121°14′10″E, 15 October 1999–1 November 2000, wet pitfall trap, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T147410); 1 ♂, Lake Fox, Hyden, site HY9 [IBRA_MAL], 32°54′50″S, 119°28′32″E, 30 October 1997–20 May 1998, wet pitfall trap, P. Van Heurck et al., CALM Salinity Action Plan Survey (WAM T147494).

Etymology.—This species is named in honor of Nadine Guthrie (formerly of the Western Australian Department of Conservation and Land Management), in recognition of her contributions to the 'Salinity Action Plan Survey' (later 'State Salinity Strategy') of the Western Australian agricultural zone (Harvey et al. 2004; Keighery 2004), and for collecting the holotype specimen of this species.

Diagnosis.—Males of *Teyl nadineae* can be distinguished from all other species in the *damsonoides*-group, except *T. danksi*, *T. faceyi*, *T. loxleyae*, *T. narrikupensis* and *T. undulites*, by the combination of a stout metatarsus I (length/width <10) without spines on the retrolateral face, and the absence of a retrolateral protuberance on the distal tibia I (Figs. 291, 292). They can further be distinguished from males of *T. danksi*, *T. faceyi* and *T. undulites* by their larger size (carapace length of holotype 8.3 mm, compared with <6 mm); and from *T. loxleyae* and *T. narrikupensis* by the morphology of metatarsus I, which is more strongly bowed proximally (Fig. 292; cf. Fig. 217, 307) (see also Fig. 12 for direct comparisons).

Description (male holotype).—Total length 21.0. Carapace 8.3 long, 7.3 wide. Abdomen 8.6 long, 5.3 wide. Carapace (Fig. 279) red-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 282) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 130–140 cuspules confined to heel and inner proximal corner (Fig. 283); labium without cuspules. Abdomen (Figs. 280, 285) oval, beige, densely setose. Legs (Figs. 289–292) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three strong ventral spines on slight distal protuberance (Figs. 290, 291); metatarsus I

(Figs. 12, 292) relatively thick (~9 × longer than wide), strongly bowed proximally with rounded but distinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 8.4, patella 4.4, tibia 6.1, metatarsus 6.9, tarsus 3.7, total length 29.4. Leg I femur–tarsus/carapace length ratio 3.5. Palpal tibia (Figs. 286–288) 3.3 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (2), and prolateral (5 + 2 empty sockets) planes (11 total, 13 including sockets). Cymbium (Figs. 286–288) with distal scopula. Bulb (Figs. 286–288) subspherical, ~0.6 × length of palpal tibia, with slightly reflexed embolus. Embolus relatively straight, whip-like, with thin base clearly demarcated from bulb, length ~1.7 × bulb length, with thin tip.

Distribution and remarks.—*Teyl nadineae* has a fairly widespread distribution through the Mallee bioregion of south-western Western Australia, extending from Dragon Rocks Nature Reserve east to approximately Scaddan and Grass Patch (Fig. 293). However, this extent of occurrence is likely to be an underestimate based on limited collection records. Little else is known of the biology or life history of this species, other than that the holotype male was collected in winter or early spring.

Teyl narrikupensis sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:5282CBB0-4A86-489F-B5DC-3FEDF1B1A6B0
(Figs. 12, 294–318)

Data coverage.—M-F-J [F-J tentatively linked].

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Narrikup [IBRA_JAF], 34°46′S, 117°42′E, 26–30 October 1984, pitfall trap, B.Y. Main (WAM T151084).

Paratypes. AUSTRALIA: *Western Australia*: 1 ♂, same data as holotype except 22 September–16 October 1984 (WAM T151531); 1 ♂, same data (WAM T151532); 1 ♂, same data except 16–26 October 1984 (WAM T151534); 1 ♂, same data (WAM T151535); 1 ♂, same data except 25 September–16 October 1984 (WAM T151525).

Other material examined (tentatively linked).—AUSTRALIA: *Western Australia*: 1 ♀, same locality data, 22 September 1984, B.Y. Main (WAM T 151528); 1 ♀, same data (WAM T151529); 1 juvenile, same data (WAM T151530).

Etymology.—The specific epithet is a reference to the type (and only known) locality of this species, at Narrikup (Western Australia). This epithet was a specimen code name first proposed by the late Barbara York Main (1929–2019), and we reproduce it here in recognition of her contributions to our understanding of this group of spiders.

Diagnosis.—Males of *Teyl narrikupensis* can be distinguished from all other species in the *damsonoides*-group, except *T. danksi*, *T. faceyi*, *T. loxleyae*, *T. nadineae*, and *T. undulites*, by the combination of a stout metatarsus I (length/width <10) without spines on the retrolateral face, and the absence of a retrolateral protuberance on the distal tibia I (Figs. 306, 307). They can further be distinguished from males of *T. danksi*, *T. faceyi* and *T. undulites* by their larger size (carapace length of holotype 7.7 mm, compared with <6 mm); and from *T. loxleyae* and *T. nadineae* by the morphology of metatarsus I, which is more strongly bowed proximally than *T. loxleyae* (Fig. 307; cf. Fig. 217), but less strongly bowed than *T. nadineae* (Fig. 307; cf. Fig. 292) (see also Fig. 12 for direct comparisons).

Description (male holotype).—Total length 18.3. Carapace 7.7 long, 6.1 wide. Abdomen 7.2 long, 4.9 wide. Carapace (Fig. 294) red-brown, lightly covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 297) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 110–120 cuspules confined to heel and inner proximal corner (Fig. 298); labium without cuspules. Abdomen (Figs. 295, 300) oval, chocolate-brown, densely setose. Legs (Figs. 304–307) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three strong ventral spines distally (Figs. 305, 306); metatarsus I (Figs. 12, 307) relatively thick (~9 × longer than wide), bowed proximally with rounded median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 7.4, patella 3.6, tibia 5.5, metatarsus 6.5, tarsus 3.6, total length 26.7. Leg I femur–tarsus/carapace length ratio 3.4. Palpal tibia (Figs. 301–303) 3.0 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (2), and prolateral (6) planes (12 total). Cymbium (Figs. 301–303) with distal scopula. Bulb (Figs. 301–303) sub-spherical, ~0.6 × length of palpal tibia, with slightly reflexed embolus. Embolus relatively straight and thin, with base clearly demarcated from bulb, length ~1.4 × bulb length, with thin tip.

Description (tentatively linked female WAM T151529).—Total length 23.5. Carapace 8.8 long, 7.6 wide. Abdomen 10.1 long, 6.7 wide. Carapace (Fig. 308) red-brown, largely glabrous; lateral margins with fringe of anteriorly curved, porrect black setae, less conspicuous than in male; fovea slightly procurved. Eye group (Fig. 311) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 150–170 cuspules confined to heel and inner proximal corner (Fig. 312); labium without cuspules. Abdomen (Figs. 309, 314) oval, light brown with slight purple tinge, setose. Legs (Figs. 315, 316) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 8.1, patella 4.7, tibia 5.5, metatarsus 5.4, tarsus 3, total length 26.7. Leg I femur–tarsus/carapace length ratio 2.4. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 5PL; metatarsus 4RL, 6PL. Spermathecae (Fig. 317) straight, converging slightly, length/width ~3.8, with distinct crowns wider than stems.

Distribution and remarks.—*Teyl narrikupensis* is known only from Narrikup, in the far southern Jarrah Forest bioregion of south-western Western Australia (Fig. 318). The co-occurring female and juvenile specimens collected at the type locality at the same time as the males are here tentatively linked based on geographic proximity. Little else is known of the biology or life history of this species, other than that males have been collected in spring.

Teyl regalis sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:4A715E68-988B-48EC-83CC-EB421D11CE55
(Figs. 10, 12, 319–343)

Data coverage.—M-F-DNA^{F} [tentatively linked].

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: 32 km NW. of Salmon Gums, site 8B [IBRA_MAL], 32°46′05″S, 121°24′37″E, October–November 2008, pitfall trap, K. George, M. Peterson (WAM T137613).

Other material examined.—AUSTRALIA: *Western Australia*: 1 ♂, Grass Patch (Fitz. Loc. 41) [IBRA_MAL], 33°14′S, 121°43′E, 9 May 1987, hand collected from front yard, A.F. Longbottom (WAM T34291).

Other material examined (tentatively linked).—AUSTRALIA: *Western Australia*: 1 ♀, Wittenoom Road, Wittenoon Hill Nature Reserve, site ES 6 [IBRA_MAL], 33°28′11″S,

122°00′50″E, 4 May 2000, dug from burrow, B.Y. Main (WAM T145304[DNA]).

Etymology.—The specific epithet is derived from the Latin *regalis* (adjective: 'regal'), in reference to large size and impressive appearance of this species.

Diagnosis.—Males of *Teyl regalis* can be distinguished from all other species in the *damsonoides*-group, except *T. damsonoides*, *T. ignicans* and *T. kwonganensis*, by the morphology of metatarsus I, which is highly elongate (length/width >10) with a prominent, sharp median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end (Fig. 332) (see also Fig. 12 for direct comparisons). They can further be distinguished from males of *T. damsonoides* by the shape of the embolus, which is narrower and positioned sub-terminally (Figs. 326–328; cf. Figs. 20–22); and from *T. ignicans* and *T. kwonganensis* by the shape of the palpal tibia, which is stouter (Figs. 326–328; cf. Figs. 160–162, 185–187).

Description (male holotype).—Total length 19.5. Carapace 8.8 long, 7.7 wide. Abdomen 7.8 long, 5.0 wide. Carapace (Fig. 319) dark orange-brown, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 322) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 130–140 cuspules confined to heel and inner proximal corner (Fig. 323); labium without cuspules. Abdomen (Figs. 320, 325) light brown, densely setose. Legs (Figs. 329–332) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with three long ventral spines sub-distally (Figs. 330, 331); metatarsus I (Figs. 12, 332) thin (~13 × longer than wide), bowed proximally with distinct, quite sharp median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 9.0, patella 4.2, tibia 6.6, metatarsus 8.9, tarsus 4.6, total length 33.3. Leg I femur–tarsus/carapace length ratio 3.8. Palpal tibia (Figs. 326–328) 2.6 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (5), ventral (5), and prolateral (5) planes (16 total). Cymbium (Figs. 326–328) with distal scopula. Bulb (Figs. 326–328) sub-spherical, ~0.6 × length of palpal tibia, with sub-terminal embolus. Embolus slightly widened, with slight central twist, base clearly demarcated from bulb, length ~1.4 × bulb length, with thin tip.

Description (tentatively linked female WAM T145304).—Total length 28.2. Carapace 10.4 long, 9.3 wide. Abdomen 12.4 long, 7.8 wide. Carapace (Fig. 333) red-brown, with light covering of downy setae, lateral margins with fringe of anteriorly curved, porrect black setae, less conspicuous than in male; fovea slightly procurved. Eye group (Fig. 336) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.1. Maxillae each with broad field of ca. 200–240 cuspules confined to heel and inner proximal corner (Fig. 337); labium without cuspules. Abdomen (Figs. 334, 339) oval, light brown with slight purple tinge, setose. Legs (340, 341) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 8.4, patella 4.9, tibia 5.6, metatarsus 5.9, tarsus 3.3, total length 28.2. Leg I femur–tarsus/carapace length ratio 2.7. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 4PL; metatarsus 4RL, 6PL. Spermathecae (Fig. 342) straight, parallel, length/width ~3.0, with distinct crowns wider than stems.

Distribution and remarks.—*Teyl regalis* is known only from the central-eastern Mallee bioregion of south-western Western Australia, extending from north-west of Salmon Gums south to Grass Patch, and likely also Wittenoon Hill (Fig. 343). The sequenced female from Wittenoon Hill has here been tentatively linked to the males from further north based on body size and distribution. Little else is known of the biology or life history of this species, other than that males have been collected in late autumn.

Teyl safferae sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:67DDF796-B3D7-498F-9A86-5B2397541B0F
(Figs. 10, 344–354)

Teyl 'MYG480': Harvey et al., 2018: 418, figs. 3–5. Huey et al., 2019: 353, fig. 3. Rix et al., 2020a: 684.

Data coverage.—F-DNA[F].

Type material.—*Holotype female*. AUSTRALIA: *Western Australia*: Mount Caudin [mine lease], ca. 50 km S. of Southern Cross, KLA-7i-F [IBRA_COO], 31°36′37″S, 119°33′24″E, 10 September 2008, hand collected, V. Saffer (WAM T132934[DNA]).

Etymology.—This species is named in honor of Vi Saffer, for collecting the holotype (and only known) specimen of this species.

Diagnosis.—Females of *Teyl safferae* can be distinguished from all other females described in this study, except *T. lengae*, by the shape of the spermathecae, which are strongly curving from an antero-medial angle at the base to an antero-lateral angle at the crown (Fig. 353). They can further be distinguished from females of *T. lengae* by the shape of the spermathecae, which are less elongate (length/width in holotype ~2.6, compared to ~3.5 in *T. lengae*). Males are unknown, and sequence data will be required in future to link the male of *T. safferae* with the female holotype.

Description (female holotype).—Total length 25.1. Carapace 8.6 long, 7.3 wide. Abdomen 11.7 long, 9.0 wide. Carapace (Fig. 344) tan, mostly glabrous, lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 347) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.1. Maxillae each with broad field of ca. 130–150 cuspules confined to heel and inner proximal corner (Fig. 348); labium without cuspules. Abdomen (Figs. 345, 350) oval, slightly damaged due to preservation, light brown, setose. Legs (Figs. 351, 352) with light scopulae on tarsi and distal half of metatarsi of legs I–II. Leg I: femur 6.8, patella 4.0, tibia 5.0, metatarsus 4.7, tarsus 2.8, total length 23.2. Leg I femur–tarsus/carapace length ratio 2.7. Leg I spines: femur and patella with few stout bristles; tibia 4RL, 4PL; metatarsus 4RL, 5PL. Spermathecae (Fig. 353) strongly curving from antero-medial angle at base to antero-lateral angle at crown, length/width ~2.6, with distinct crowns wider than stems.

Distribution and remarks.—*Teyl safferae* (previously 'MYG480'; e.g. see Rix et al. 2020a) is known only from Mount Caudin, in the western Coolgardie bioregion of inland south-western Western Australia (Fig. 354). Nothing else is known of the biology or life history of this species, and males are unknown.

Teyl sampeyae sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:2CD02F76-2D7B-4F25-BE6C-D488D168CB30
(Figs. 12, 355–369)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Mount Cooke [IBRA_JAF], 32°25′S, 116°18′E, 17 September 1995, hand collected under granite rock, wandoo woodland, A. Sampey, J.M. Waldock (WAM T32598).

Etymology.—This species is named in honor of Alison Sampey, in recognition of her contributions to WAM-led field survey work conducted at Mount Cooke in 1995, and for collecting the holotype (and only known) specimen of this species.

Diagnosis.—Males of *Teyl sampeyae* can be distinguished from all other species in the *damsonoides*-group, except *T. brydensis* and *T. tealei*, by the presence on the distal tibia I of a retrolateral protuberance armed with two strong ventral spines (Fig. 367). They can further be distinguished from males of *T. brydensis* by the shape of the embolus, which is comparatively straight (Figs. 362–364; cf. Figs. 60–62); and from *T. tealei* by their larger size (carapace length of holotype male 7.2 mm, compared with 5.6 mm in *T. tealei*).

Description (male holotype).—Total length 15.6. Carapace 7.2 long, 6.0 wide. Abdomen 6.2 long, 3.7 wide. Carapace (Fig. 355) tan, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 358) rectangular, ~0.4 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 115–125 cuspules confined to heel and inner proximal corner (Fig. 359); labium without cuspules. Abdomen (Figs. 356, 361) oval, dark brown dorsally, densely setose. Legs (Figs. 365–368) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with two strong ventral spines on distal protuberance (Figs. 366, 367); metatarsus I (Figs. 12, 368) relatively thick (~8 × longer than wide), strongly bowed proximally with rounded median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 7.1, patella 3.5, tibia 5.13, metatarsus 6.0, tarsus 2.7, total length 24.4. Leg I femur–tarsus/carapace length ratio 3.4. Palpal tibia (Figs. 362–364) 3.1 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (3), and prolateral (6) planes (13 total). Cymbium (Figs. 362–364) with distal scopula. Bulb (Figs. 362–364) sub-spherical, ~0.6 × length of palpal tibia, with slightly reflexed embolus. Embolus relatively straight, whip-like, with thin base clearly demarcated from bulb, length ~1.6 × bulb length, with thin tip.

Distribution and remarks.—*Teyl sampeyae* has a somewhat disjunct distribution relative to other species in the *damsonoides*-group, and is known only from Mount Cooke, in the northern Jarrah Forest bioregion of south-western Western Australia (Fig. 369). Little else is known of the biology or life history of this species, other than that the holotype male was collected in early spring.

Teyl tealei sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:F5E82BC6-8CE9-4487-8CBD-83847E91E9B4
(Figs. 10, 12, 370–384)

Teyl 'MYG455': Harvey et al., 2018: 418, figs. 3–5. Huey et al., 2019: 353, fig. 3. Rix et al., 2020a: 684.

Data coverage.—M-DNA^{M}.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: 25.5 km E. of Ravensthorpe, site RNOCTS3 [IBRA_ESP], 33°34′06″S, 120°19′11″E, 25 August 2005, dry pitfall trap, R. Teale, Z. Hamilton (WAM T72719^{DNA}).

Paratypes. AUSTRALIA: *Western Australia*: 1 ♂, same data as holotype except 24.6 km E. of Ravensthorpe, site RNOCTS1, 33°34′45″S, 120°18′37″E, 26 August 2005 (WAM T72718^{DNA}).

Etymology.—This species is named in honor of Roy Teale (Biota Environmental Sciences), in recognition of his contributions to mygalomorph spider research in Western Australia, and for collecting the type specimens of this species.

Diagnosis.—Males of *Teyl tealei* can be distinguished from all other species in the *damsonoides*-group, except *T. brydensis* and *T. sampeyae*, by the presence on the distal tibia I of a retrolateral protuberance armed with two strong ventral spines (Fig. 382). They can further be distinguished from both *T. brydensis* and *T. sampeyae* by their smaller size (carapace length of holotype male 5.6mm, compared to 7.2 mm in both *T. brydensis* and *T. sampeyae*); and from *T. brydensis* by the shape of the embolus, which is comparatively straight (Figs. 377–379; cf. Figs. 60–62).

Description (male holotype).—Total length 13.5. Carapace 5.6 long, 5.3 wide. Abdomen 5.4 long, 3.6 wide. Carapace (Fig. 370) light tan, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea slightly procurved. Eye group (Fig. 373) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 60–70 cuspules confined to heel and inner proximal corner (Fig. 374); labium without cuspules. Abdomen (Figs. 371, 376) oval, dark brown dorsally, densely setose. Legs (Figs. 380–383) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with two strong ventral spines on distal protuberance (Figs. 381, 382); metatarsus I (Figs. 12, 383) relatively thick (~7 × longer than wide), strongly bowed proximally with rounded but distinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 6.2, patella 3.1, tibia 4.4, metatarsus 4.7, tarsus 2.7, total length 21.0. Leg I femur–tarsus/carapace length ratio 3.7. Palpal tibia (Figs. 377–379) 2.8 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (4), ventral (2), and prolateral (5) planes (12 total). Cymbium (Figs. 377–379) with distal scopula. Bulb (Figs. 377–379) sub-spherical, ~0.7 × length of palpal tibia, with slightly reflexed embolus. Embolus relatively long, straight, whip-like, with thin base clearly demarcated from bulb, length ~1.8 × bulb length, with thin tip.

Distribution and remarks.—*Teyl tealei* (previously 'MYG455'; e.g. see Rix et al. 2020a) is known only from the Ravensthorpe Range, in the central Esperance Plains bioregion of southern Western Australia (Fig. 384). Little else is known of the biology or life history of this species, other than that males have been collected in late winter.

Teyl undulites sp. nov.
http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:83429A4D-F149-48A8-9C1E-95230A8A485B
(Figs. 12, 385–399)

Data coverage.—M.

Type material.—*Holotype male*. AUSTRALIA: *Western Australia*: Hyden Rock, campsite (town water supply dam) [IBRA_MAL], 32°26′S, 118°54′E, 6 September 1952, B.Y. Main (WAM T147347).

Etymology.—The specific epithet is derived from the Latin *unda* (noun: 'wave') and the Latin suffix *–ites* (signifying 'mineral' or 'rock'), in reference to the type (and only known) locality of this species, at Wave Rock (Western Australia).

Diagnosis.—Males of *Teyl undulites* can be distinguished from all other species in the *damsonoides*-group, except *T. danksi*, *T. faceyi*, *T. loxleyae*, *T. nadineae* and *T. narrikupensis*, by the combination of a stout metatarsus I (length/width <10) without spines on the retrolateral face, and the absence of a retrolateral protuberance on the distal tibia I (Figs. 397, 398). They can further be distinguished from males of *T. loxleyae*, *T. nadineae* and *T. narrikupensis* by their smaller size (carapace length of holotype 5.2 mm, compared with >7 mm); from *T. faceyi* by the shape of the

embolus, which is relatively straight, as opposed to gradually curving (Figs. 392–394; cf. Figs. 105–107); and from *T. danksi* by the morphology of metatarsus I, which is less strongly bowed proximally (Fig. 398; cf. Fig. 96) (see also Fig. 12 for direct comparisons).

Description (male holotype).—Total length 14.8. Carapace 5.2 long, 5.0 wide. Abdomen 6.4 long, 3.2 wide. Carapace (Fig. 385) tan, covered with reflective downy setae; lateral margins with fringe of anteriorly curved, porrect black setae; fovea straight. Eye group (Fig. 388) rectangular, ~0.5 × as long as wide, PLE–PLE/ALE–ALE ratio ~1.0. Maxillae each with broad field of ca. 110–120 cuspules confined to heel and inner proximal corner (Fig. 389); labium without cuspules. Abdomen (Figs. 386, 391) damaged, light brown dorsally, setose. Legs (Figs. 395–398) with light scopulae on tarsi I–IV and distal half of metatarsi I–II; tibia I spinose, with two slightly longer ventral spines distally (Figs. 396, 397); metatarsus I (Figs. 12, 398) relatively thick (~8 × longer than wide), very slightly bowed proximally with rounded, indistinct median retrolateral protuberance positioned ~0.4 × length of metatarsus from proximal end. Leg I: femur 5.5, patella 2.7, tibia 4.5, metatarsus 4.8, tarsus 3.0, total length 20.5. Leg I femur–tarsus/carapace length ratio 3.9. Palpal tibia (Figs. 392–394) 3.3 × longer than wide, with porrect macrosetae on dorsal (1), retrolateral (3), ventral (2), and prolateral (2) planes (8 total). Cymbium (Figs. 392–394) with distal scopula. Bulb (Figs. 392–394) sub-spherical, ~0.6 × length of palpal tibia, embolus sub-terminal/very slightly reflexed. Embolus almost straight, with slight bend about halfway, with thin base clearly demarcated from bulb, length ~1.5 × bulb length, with thin tip.

Distribution and remarks.—*Teyl undulites* is known only from Wave Rock, in the north-western Mallee bioregion of inland south-western Western Australia (Fig. 399). Little else is known of the biology or life history of this species, other than that the holotype male was collected in early spring.

Teyl spp. indet.
(Fig. 11)

Merredinia damsonoides Main, 1983: 933, figs. 4, 55–70 (in part; all cited and figured female paratype specimens).

Data coverage.—F-J.

Material examined (Avon Wheatbelt [IBRA_AVW] bioregion).—AUSTRALIA: *Western Australia*: 1 ♀ (ex. *T. damsonoides* paratype), 12.8 km N. of Bruce Rock, 31°49′S, 118°07′E, 4 June 1955, hand collected from burrow, B.Y. Main (WAM T76923); 1 ♀ (ex. *T. damsonoides* paratype), Dongolocking, 33°05′S, 117°49′E, 20 September 1956, hand collected from burrow, V.N. Serventy (WAM T146955); 1 ♀ (ex. *T. damsonoides* paratype), Emu Hill, ca. 6 km SW. of Narembeen, 32°05′S, 118°20′E, 8 June 1952, hand collected from burrow, B.Y. Main (WAM T3575); 6 ♀ (ex. *T. damsonoides* paratypes), W. of Harrismith, 32°56′S, 117°51′E, 11 June 1952, hand collected from burrow, B.Y. Main (WAM T3579); 1 ♀ (ex. *T. damsonoides* paratype), same data except 2 June 1952 (WAM T15240); 1 ♀ (ex. *T. damsonoides* paratype), same data (WAM T15241); 1 ♀ (ex. *T. damsonoides* paratype), 9.7 km S. of Merredin, 31°34′S, 118°15′E, 29 August 1956, hand collected from burrow, B.Y. Main (WAM T146954); 1 juvenile (ex. *T. damsonoides* paratype), same data (WAM T111383); 1 ♀ (ex. *T. damsonoides* paratype), 9 km N. of Merredin, 31°24′S, 118°15′E, 4 June 1955, hand collected from burrow, B.Y. Main (WAM T59505); 1 ♀ (ex. *T. damsonoides* paratype/allotype), 9.7 km N. of Merredin, 31°24′S, 118°16′E, 29 August 1956, hand collected from burrow, B.Y. Main (WAM T15239); 1 ♀ (ex. *T. damsonoides* paratype), Tunney, 34°07′S, 117°21′E, 7 September 1972, hand collected from burrow, B.Y. Main (WAM T146959); 1 ♀ (ex. *T. damsonoides* paratype), same data (WAM T146960); 1 ♀ (ex. *T. damsonoides* paratype), same data (WAM T146961); 1 ♀ (ex. *T. damsonoides* paratype), same data (WAM T15250);

Material examined (Jarrah Forest [IBRA_JAF] bioregion).—AUSTRALIA: *Western Australia*: 1 ♀, Crapella Road Reserve, N. of Kojonup, 33°39′S, 117°06′E, 5 February 1983, hand collected from burrow, B.Y. Main (WAM T146976).

Material examined (Mallee [IBRA_MAL] bioregion).—AUSTRALIA: *Western Australia*: 1 juvenile (ex. *T. damsonoides* paratype), 32 Mile Rock, E. of Hyden, 32°37′S, 119°21′E, 25 October 1969, hand collected from burrow, B.Y. Main (WAM T146957); 1 juvenile (ex. *T. damsonoides* paratype), E. of Hyden [no specific locality], 24 October 1969, hand collected from burrow, B.Y. Main (WAM T146956); 1 juvenile (ex. *T. damsonoides* paratype), E. of Kukerin, 33°11′S, 118°05′E, 28 March 1954, hand collected from burrow, B.Y. Main (WAM T3629); 1 juvenile (ex. *T. damsonoides* paratype), 19 km S. of Lake King, 33°15′S, 119°46′E, 28 October 1969, hand collected from burrow, B.Y. Main (WAM T146958); 1 ♀ (ex. *T. damsonoides* paratype), SE. of Lake King [no specific locality], 4 December 1981, hand collected from burrow, B.Y. Main (WAM T146962); 1 ♀ (ex. *T. damsonoides* paratype), 37 km E. of Newdegate, 33°06′S, 119°28′E, 23 May 1955, hand collected from burrow, B.Y. Main (WAM T3630); 1 ♀ (ex. *T. damsonoides* paratype), same data (WAM T3631); 1 ♀ (ex. *T. damsonoides* paratype), same data (WAM T3632); 1 ♀ (ex. *T. damsonoides* paratype), same data (WAM T3633); 1 ♀ (ex. *T. damsonoides* paratype), NW. of Peak Charles, 56 km E. of 90 Mile Tank [no specific locality], 24 May 1955, hand collected from burrow, B.Y. Main (WAM T3700).

Material examined (Esperance Plains bioregion).—AUSTRALIA: *Western Australia*: 1 ♀ (ex. *T. damsonoides* paratype), 11 km S. of Ravensthorpe, 33°41′S, 120°03′E, 27 May 1955, hand collected from burrow, B.Y. Main (WAM T3702).

Remarks.—The above female and juvenile specimens (see Figs. 11, 37), all but one of which were assigned as paratypes of *T. damsonoides* by Main (1983), are here designated as 'species indeterminate' and remain unidentified. None of the above listed specimens (including Main's 1983 'allotype') were actually collected near the type locality of *T. damsonoides*, and it is questionable as to which ones, if any, belong to this species. Indeed, females in the *damsonoides*-group are difficult to identify in the absence of co-occurring males, due to the complex overlapping distributions of so many species in the Avon Wheatbelt and Mallee bioregions. In this revision we have therefore refrained from linking older, isolated morphology-only female and juvenile specimens with described species, and have only tentatively linked sequenced females and juveniles (Fig. 10), along with those collected from identical locations as holotype males (e.g. *T. howensis*, *T. melindae*, *T. narrikupensis*). Further research is required to fill in these gaps, and link male-only named species with their respective females and sequences.

ACKNOWLEDGEMENTS

We would like especially to thank Julianne Waldock and Alan Longbottom (WAM) for their extensive assistance with specimen curation and loans, and we recognize the great efforts they went to in sorting and registering *Teyl* specimens from the Barbara York Main collection so that they could be shipped to the Queensland

Museum for study. This work would also have been impossible without the priceless collections provided by the then CALM (Department of Conservation and Land Management) 'Salinity Action Plan Survey' (later 'State Salinity Strategy') of the Western Australian agricultural zone, run from 1997–2000 (see Rix et al. 2018). Funding for this project came from an Australian Biological Resources Study (ABRS) Taxonomy Research Grant (No. RG18–03) to MGR, MSH and JDW.

SUPPLEMENTAL MATERIALS

File S1.— Supplemental nexus file, online at https://doi.org/10.1636/JoA-S-21-077.s1

LITERATURE CITED

Biological Surveys Committee. 1984. The biological survey of the Eastern Goldfields of Western Australia, Part I: introduction and methods. *Records of the Western Australian Museum Supplement* 18: 1–19.

Harvey MS, Hillyer MJ, Main BY, Moulds TA, Raven RJ, Rix MG, Vink CJ, Huey JA. 2018. Phylogenetic relationships of the Australasian open-holed trapdoor spiders (Araneae: Mygalomorphae: Nemesiidae: Anaminae): multi-locus molecular analyses resolve the generic classification of a highly diverse fauna. *Zoological Journal of the Linnean Society* 184:407–452.

Harvey MS, Rix MG, Hillyer MJ, Huey JA. 2020. The systematics and phylogenetic position of the troglobitic Australian spider genus *Troglodiplura* (Araneae: Mygalomorphae), with a new classification for Anamidae. *Invertebrate Systematics* 34:799–822.

Harvey MS, Waldock JM, Guthrie NA, Durrant BJ, McKenzie NL. 2004. Patterns of composition of ground-dwelling araneomorph spider communities in the Western Australian Wheatbelt. *Records of the Western Australian Museum Supplement* 67:257–291.

Huey JA, Rix MG, Wilson JD, Hillyer MJ, Harvey MS. 2019. Open-holed trapdoor spiders of the genus *Teyl* (Mygalomorphae: Nemesiidae: Anamini) from Western Australia's Pilbara bioregion: a new species and expanded phylogenetic assessment. *Zootaxa* 4674:349–362.

Keighery GJ. 2004. State Salinity Strategy biological survey of the Western Australian Wheatbelt: background. *Records of the Western Australian Museum Supplement* 67:1–6.

Main BY. 1975. The citrine spider: a new genus of trapdoor spiders (Mygalomorphae: Dipluridae). *The Western Australian Naturalist* 13: 73–78.

Main BY. 1983. Further studies on the systematics of Australian Diplurinae (Chelicerate: Mygalomorphae: Dipluridae): two new genera from south western Australia. *Journal of Natural History* 17:923–949.

Main BY. 1985. Further studies on Australian Diplurinae: a review of the genera of the Teylini (Araneae: Mygalomorphae: Dipluridae). *Australian Journal of Zoology* 33:743–759.

Moir ML, Brennan KEC, Harvey MS. 2009. Diversity, endemism and species turnover of millipedes within the south-western Australian global biodiversity hotspot. *Journal of Biogeography* 36:1958–1971.

Rix MG, Edwards DL, Byrne M, Harvey MS, Joseph L, Roberts JD. 2015. Biogeography and speciation of terrestrial fauna in the south-western Australian biodiversity hotspot. *Biological Reviews* 90: 762–793.

Rix MG, Main BY, Raven RJ, Harvey MS. 2018. Systematics of the spiny trapdoor spiders of the genus *Eucanippe* (Mygalomorphae: Idiopidae: Aganippini) from south-western Australia: documenting a poorly-known lineage from Australia's biodiversity hotspot. *Journal of Arachnology* 46:133–154.

Rix MG, Wilson JD, Harvey MS. 2020a. First phylogenetic assessment and taxonomic synopsis of the open-holed trapdoor spider genus *Namea* (Mygalomorphae: Anamidae): a highly diverse mygalomorph lineage from Australia's tropical eastern rainforests. *Invertebrate Systematics* 34:679–726.

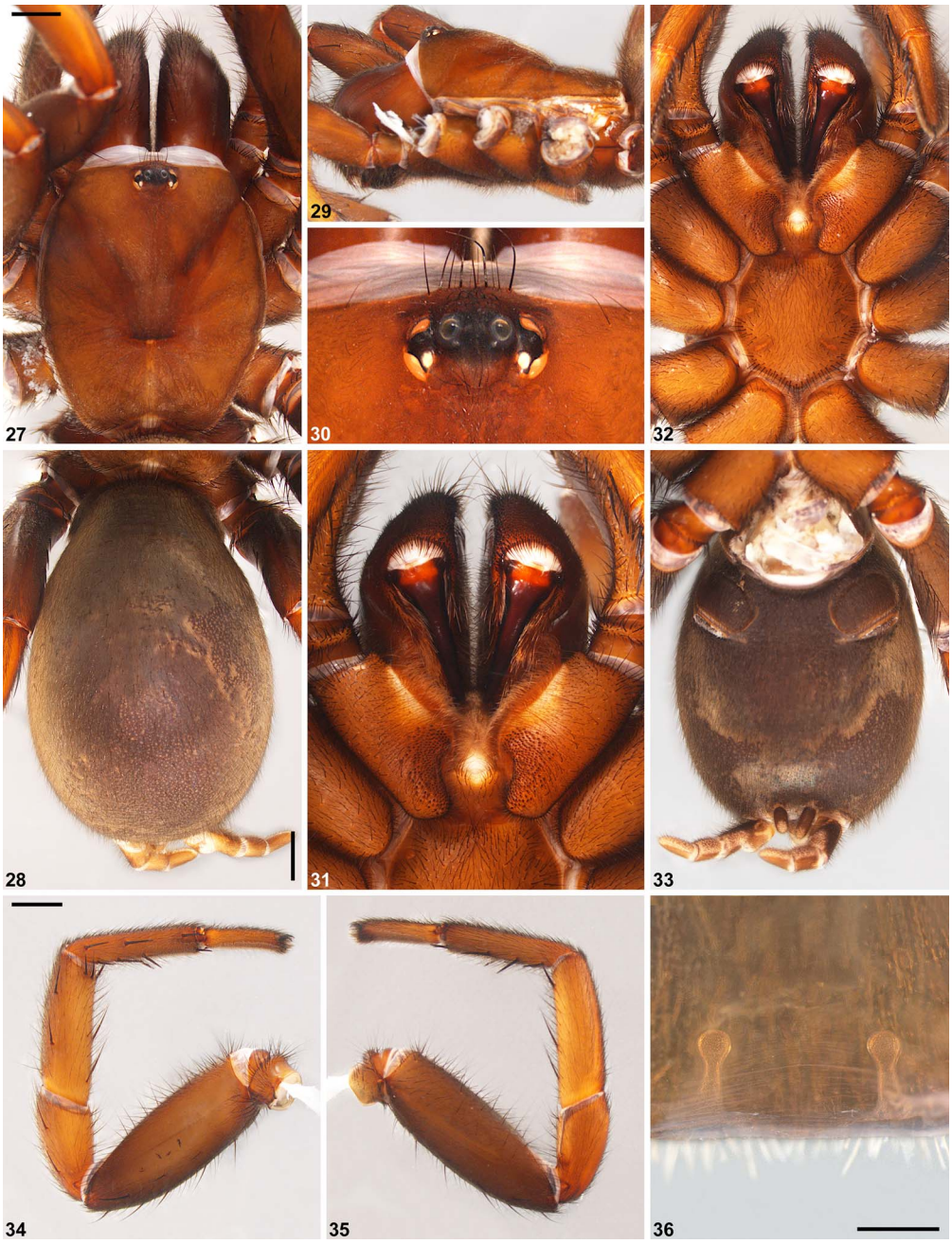
Rix MG, Wilson JD, Harvey MS. 2020b. The open-holed trapdoor spiders (Mygalomorphae: Anamidae: *Namea*) of Australia's D'Aguilar Range: revealing an unexpected subtropical hotspot of rainforest diversity. *Zootaxa* 4861:71–91.

Rix MG, Wilson JD, Huey JA, Hillyer MJ, Gruber K, Harvey MS. 2021. Diversification of the mygalomorph spider genus *Aname* (Araneae: Anamidae) across the Australian arid zone: tracing the evolution and biogeography of a continent-wide radiation. *Molecular Phylogenetics and Evolution* 160:107127.

Manuscript received 6 December 2021, revised 3 May 2022, accepted 4 May 2022.

Figures 13–19.—*Teyl damsonoides* (Main, 1983), male holotype (WAM T15238) from Lake Cronin Nature Reserve (Western Australia; COO), body: 13, 14, carapace and abdomen, dorsal view; 15, cephalothorax, lateral view; 16, eyes, dorsal view; 17, mouthparts, ventral view; 18, 19, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 20–26.—*Teyl damsonoides* (Main, 1983), male holotype (WAM T15238) from Lake Cronin Nature Reserve (Western Australia; COO), right pedipalp (flipped horizontal for comparison) and leg I: 20, pedipalp, retrolateral view; 21, pedipalp, retroventral view; 22, pedipalp, prolateral view; 23, leg I, prolateral view; 24, tibia I, prolateral view; 25, tibia I, retrolateral view; 26, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.



Figures 27–36.—*Teyl damsonoides* (Main, 1983), female (WAM T137482) from Lake Cronin Nature Reserve (Western Australia; COO): 27, 28, carapace and abdomen, dorsal view; 29, cephalothorax, lateral view; 30, eyes, dorsal view; 31, mouthparts, ventral view; 32, 33, cephalothorax and abdomen, ventral view; 34, leg I, prolateral view; 35, leg I, retrolateral view; 36, spermathecae, dorsal view. Scale bars = 2.0 mm (27, 28, 34), 0.5 mm (36).

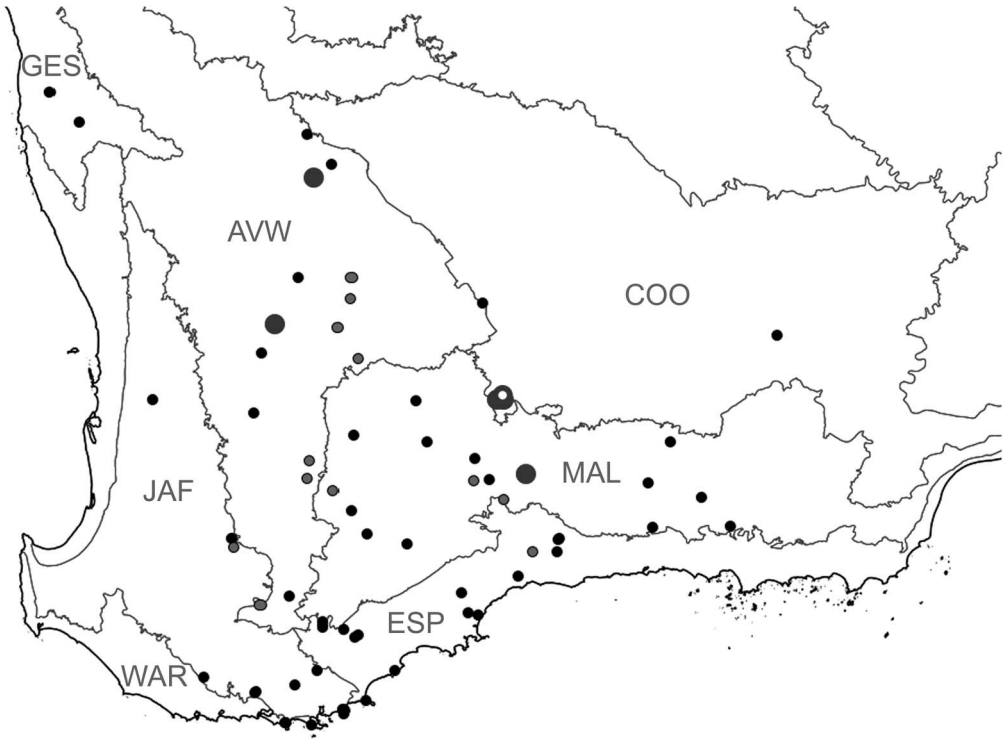


Figure 37.—Map showing collection records of *Teyl damsonoides* (Main, 1983) (large circles), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.

Figures 38–44.—*Teyl beaufortia* sp. nov., male holotype (WAM T151583) from Beaufort River Tavern (Western Australia; JAF), body: 38, 39, carapace and abdomen, dorsal view; 40, cephalothorax, lateral view; 41, eyes, dorsal view; 42, mouthparts, ventral view; 43, 44, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 45–51.—*Teyl beaufortia* sp. nov., male holotype (WAM T151583) from Beaufort River Tavern (Western Australia; JAF), pedipalp and leg I: 45, pedipalp, retrolateral view; 46, pedipalp, retroventral view; 47, pedipalp, prolateral view; 48, leg I, prolateral view; 49, tibia I, prolateral view; 50, tibia I, retrolateral view; 51, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

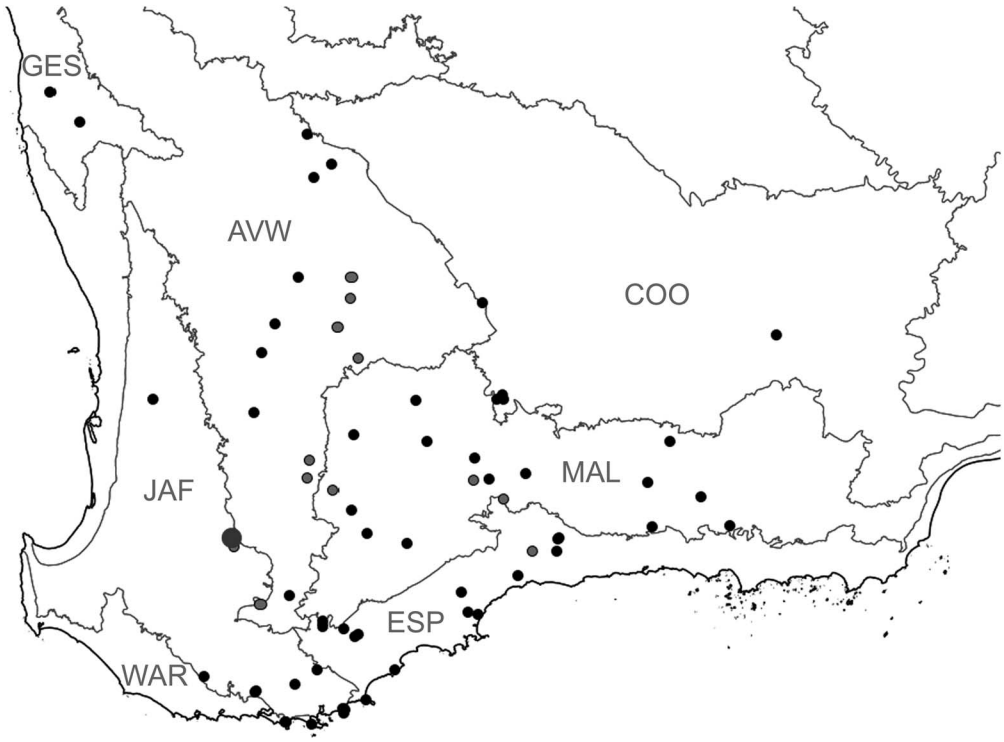
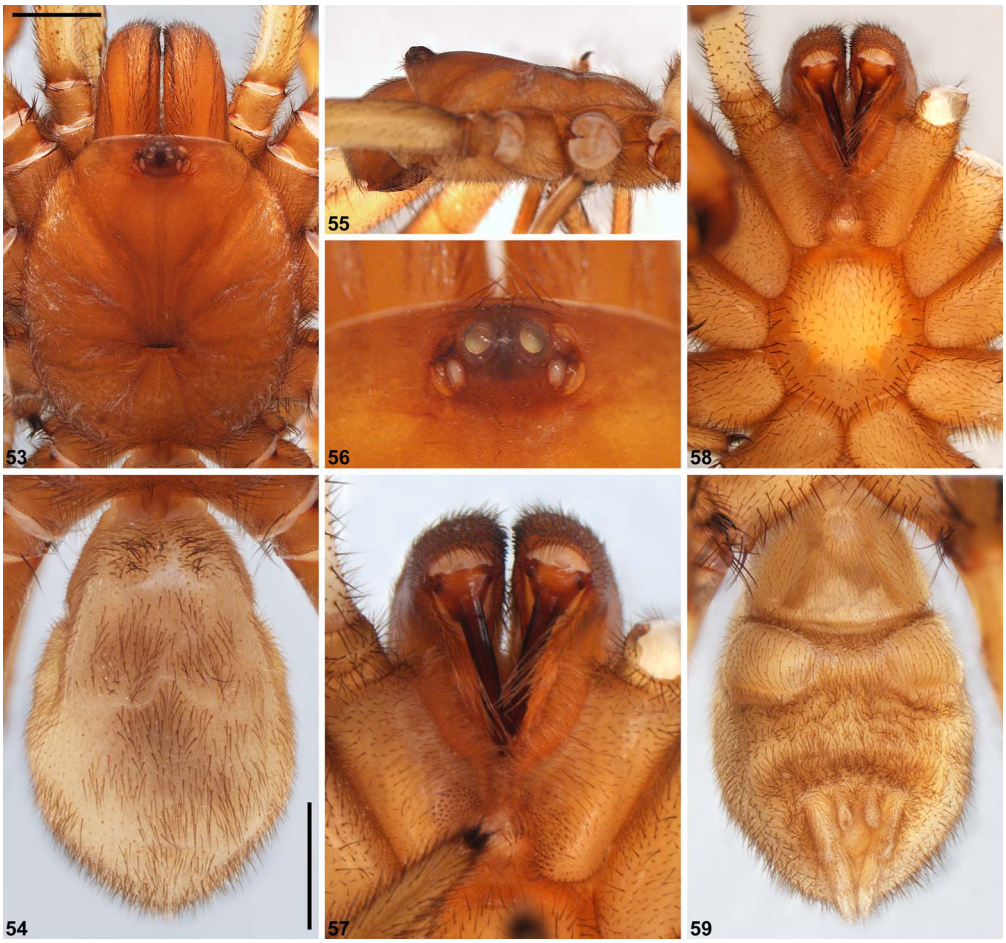
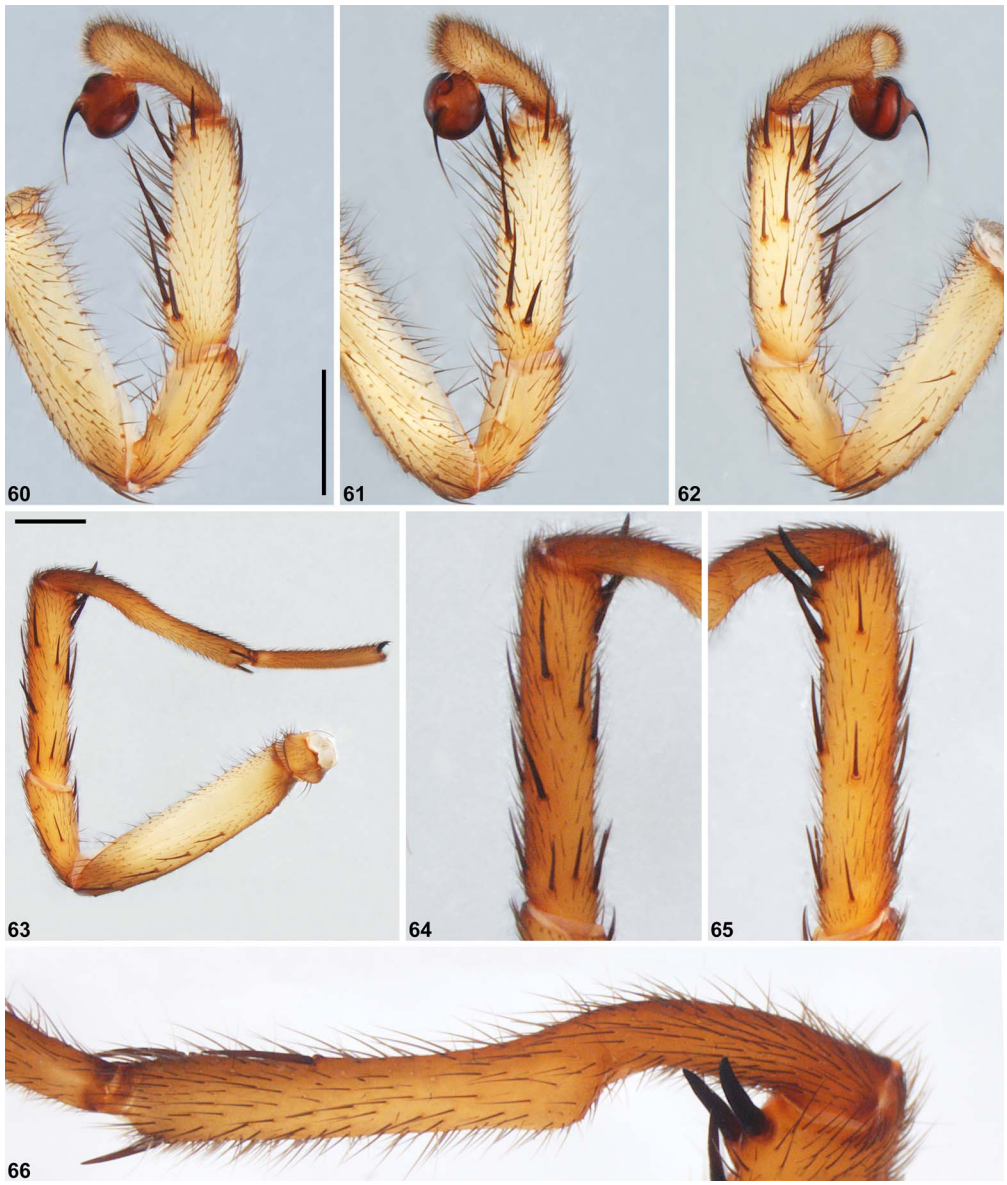


Figure 52.—Map showing collection records of *Teyl beaufortia* sp. nov. (large circle), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.



Figures 53–59.—*Teyl brydensis* sp. nov., male holotype (WAM T147459) from Lake Bryde West Nature Reserve (Western Australia; MAL), body: 53, 54, carapace and abdomen, dorsal view; 55, cephalothorax, lateral view; 56, eyes, dorsal view; 57, mouthparts, ventral view; 58, 59, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 60–66.—*Teyl brydensis* sp. nov., male holotype (WAM T147459) from Lake Bryde West Nature Reserve (Western Australia; MAL), pedipalp and leg I: 60, pedipalp, retrolateral view; 61, pedipalp, retroventral view; 62, pedipalp, prolateral view; 63, leg I, prolateral view; 64, tibia I, prolateral view; 65, tibia I, retrolateral view; 66, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

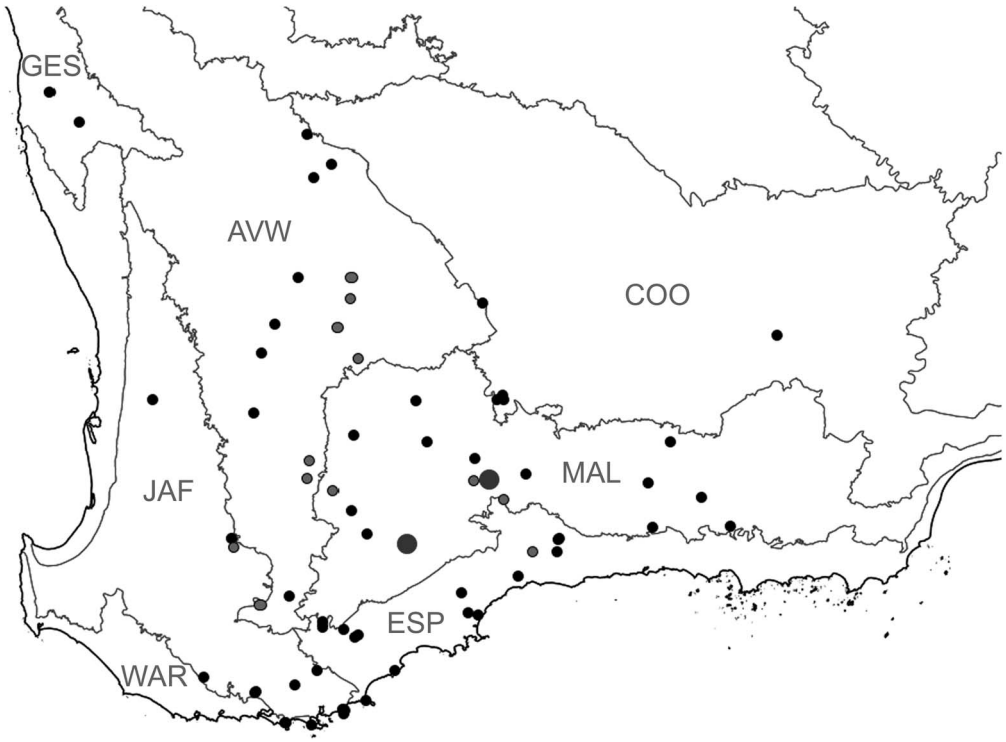
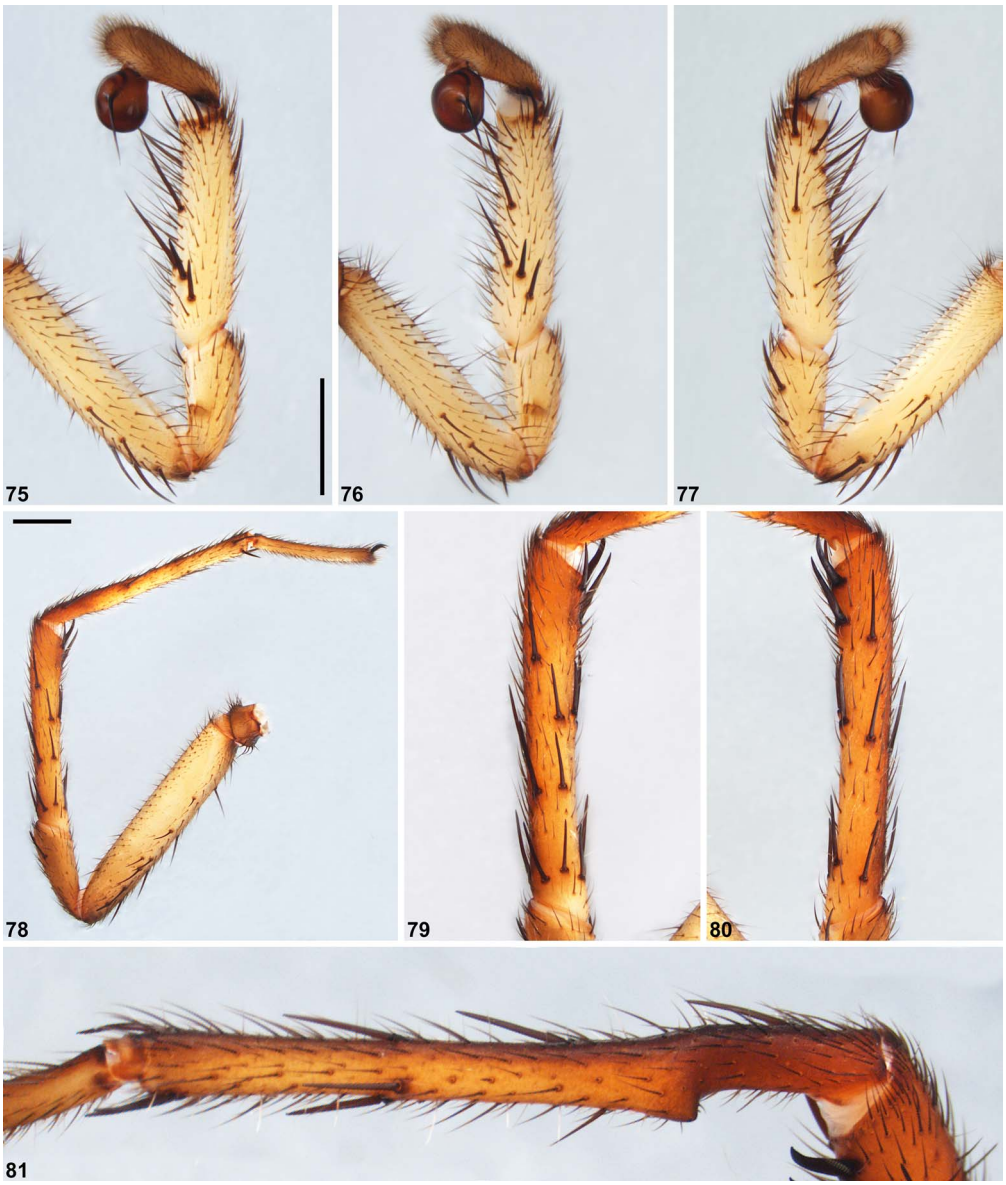


Figure 67.—Map showing collection records of *Teyl brydensis* sp. nov. (large circles), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.

Figures 68–74.—*Teyl caurinus* sp. nov., male holotype (WAM T143095) from Nanga Station (Western Australia; CAR), body: 68, 69, carapace and abdomen, dorsal view; 70, cephalothorax, lateral view; 71, eyes, dorsal view; 72, mouthparts, ventral view; 73, 74, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 75–81.—*Teyl caurinus* sp. nov., male holotype (WAM T143095) from Nanga Station (Western Australia; CAR), pedipalp and right leg I (flipped horizontal for comparison): 75, pedipalp, retrolateral view; 76, pedipalp, retroventral view; 77, pedipalp, prolateral view; 78, leg I, prolateral view; 79, tibia I, prolateral view; 80, tibia I, retrolateral view; 81, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

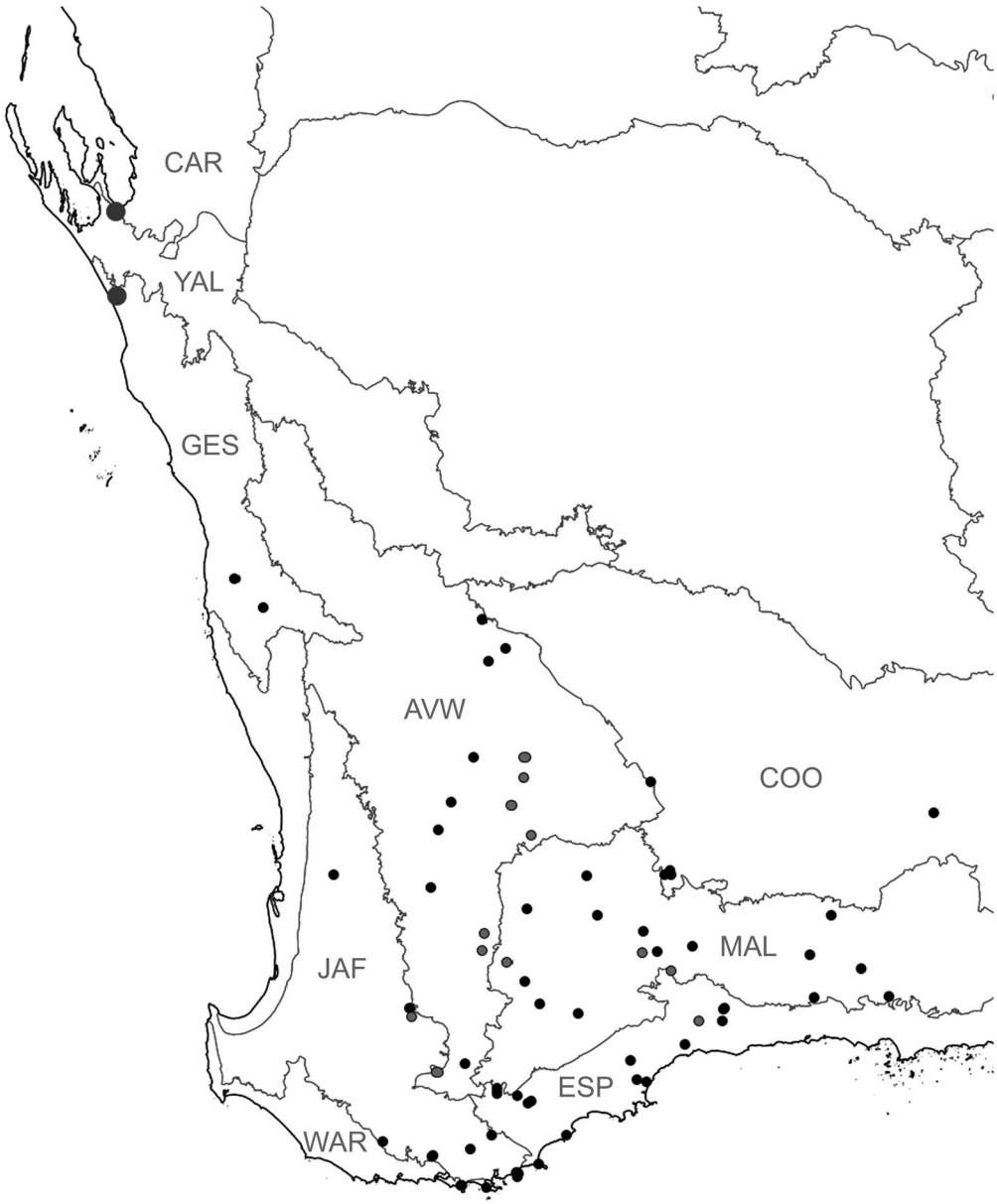


Figure 82.—Map showing collection records of *Teyl caurinus* sp. nov. (large circles), relative to other taxa from south-western Western Australia. See Figure 11 for IBRA bioregional acronyms.

Figures 83–89.—*Teyl danksi* sp. nov., male holotype (WAM T136877) from Two Peoples Bay Nature Reserve (Western Australia; JAF), body: 83, 84, carapace and abdomen, dorsal view; 85, cephalothorax, lateral view; 86, eyes, dorsal view; 87, mouthparts, ventral view; 88, 89, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 90–96.—*Teyl danksi* sp. nov., male holotype (WAM T136877) from Two Peoples Bay Nature Reserve (Western Australia; JAF), pedipalp and leg I: 90, pedipalp, retrolateral view; 91, pedipalp, retroventral view; 92, pedipalp, prolateral view; 93, leg I, prolateral view; 94, tibia I, prolateral view; 95, tibia I, retrolateral view; 96, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

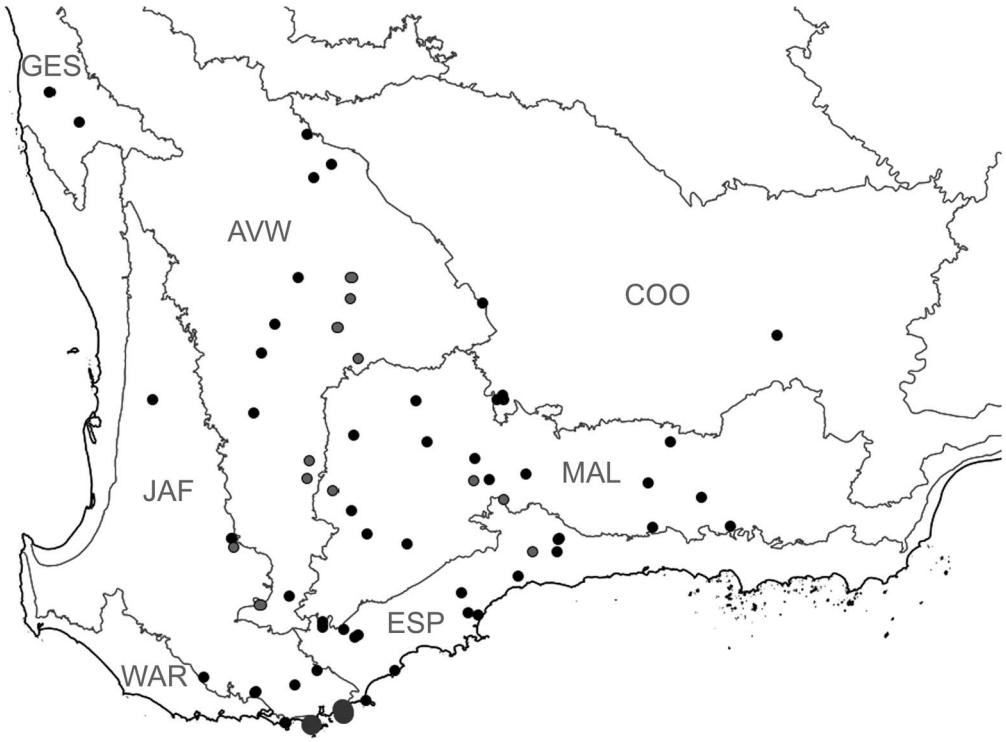
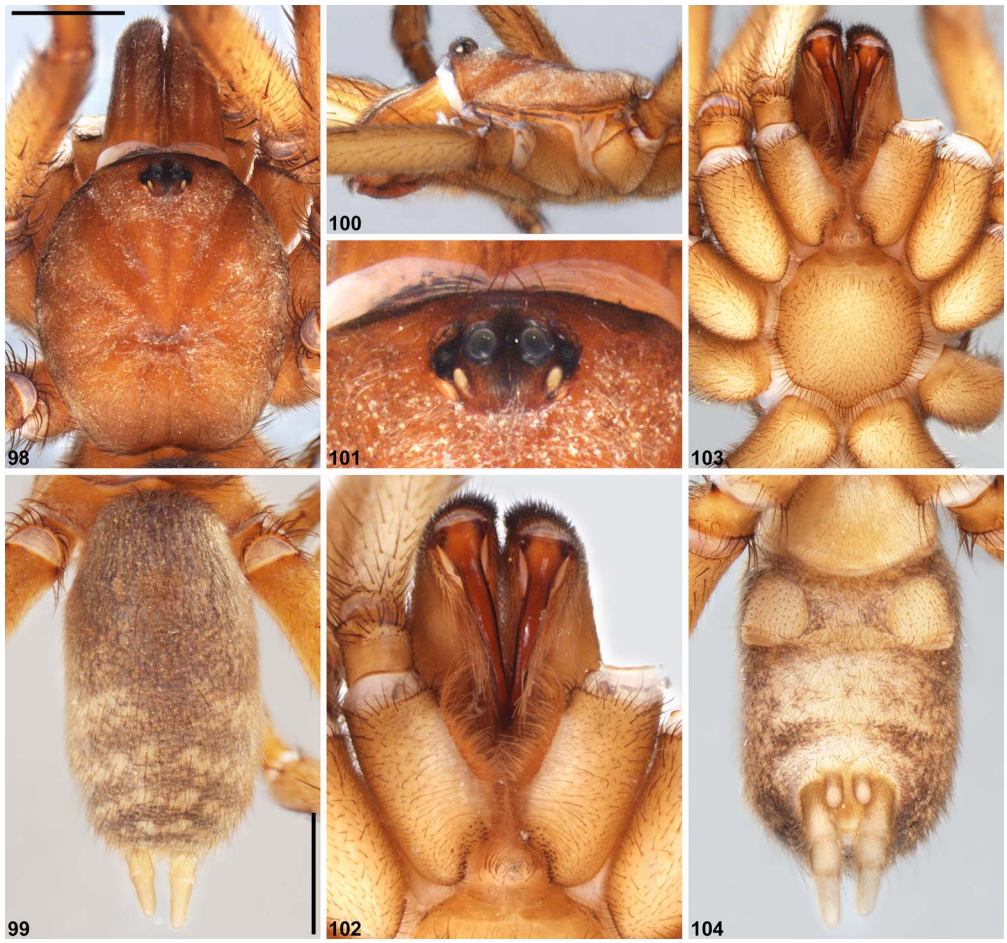


Figure 97.—Map showing collection records of *Teyl danksi* sp. nov. (large circles), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.



Figures 98–104.—*Teyl faceyi* sp. nov., male holotype (WAM T147060) from Durokoppin Nature Reserve (Western Australia; AVW), body: 98, 99, carapace and abdomen, dorsal view; 100, cephalothorax, lateral view; 101, eyes, dorsal view; 102, mouthparts, ventral view; 103, 104, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 105–111.—*Teyl faceyi* sp. nov., male holotype (WAM T147060) from Durokoppin Nature Reserve (Western Australia; AVW), pedipalp and leg I: 105, pedipalp, retrolateral view; 106, pedipalp, retroventral view; 107, pedipalp, prolateral view; 108, leg I, prolateral view; 109, tibia I, prolateral view; 110, tibia I, retrolateral view; 111, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

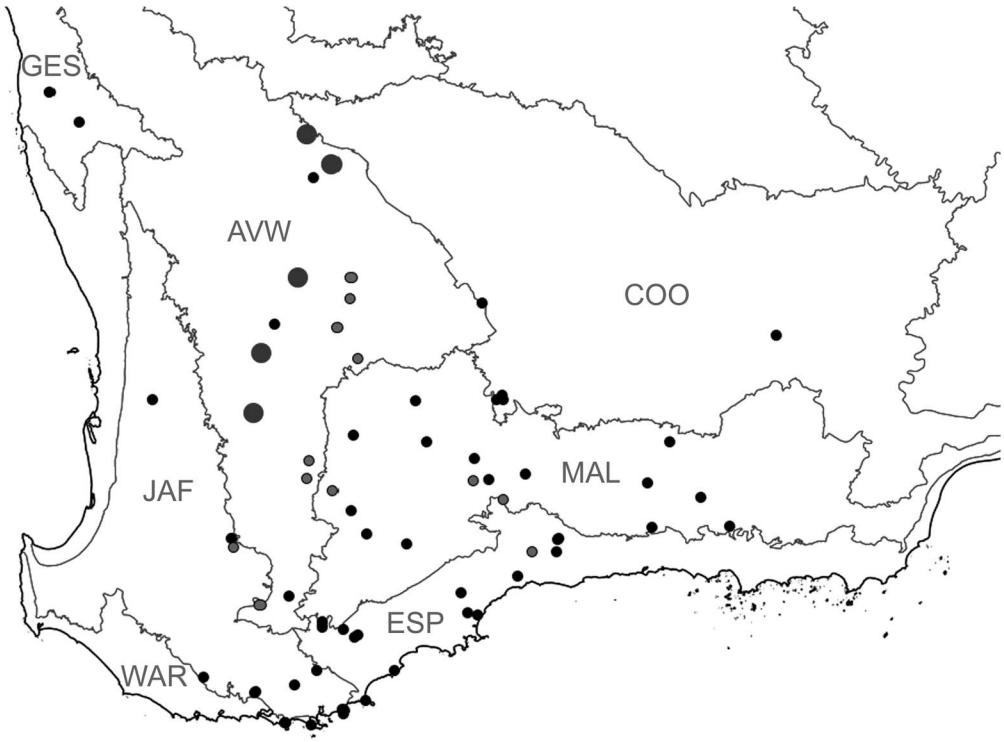
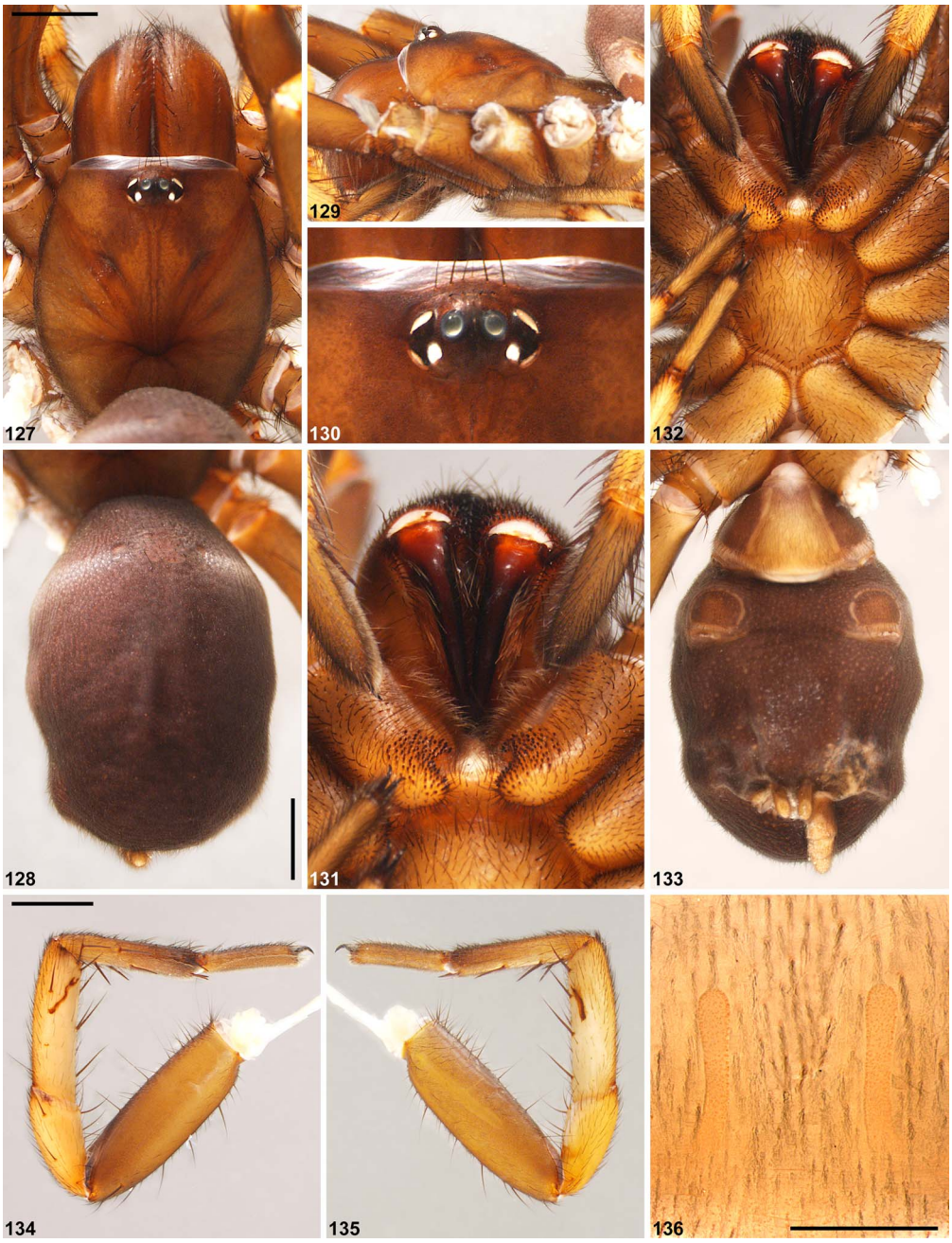


Figure 112.—Map showing collection records of *Teyl faceyi* sp. nov. (large circles), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.

Figures 113–119.—*Teyl howensis* sp. nov., male holotype (WAM T151092) from Lake William, West Cape Howe National Park (Western Australia; WAR), body: 113, 114, carapace and abdomen, dorsal view; 115, cephalothorax, lateral view; 116, eyes, dorsal view; 117, mouthparts, ventral view; 118, 119, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 120–126.—*Teyl howensis* sp. nov., male holotype (WAM T151092) from Lake William, West Cape Howe National Park (Western Australia; WAR), right pedipalp (flipped horizontal for comparison) and leg I: 120, pedipalp, retrolateral view; 121, pedipalp, retroventral view; 122, pedipalp, prolateral view; 123, leg I, prolateral view; 124, tibia I, prolateral view; 125, tibia I, retrolateral view; 126, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.



Figures 127–136.—*Teyl howensis* sp. nov., female paratype (WAM T134903) from Lake William, West Cape Howe National Park (Western Australia; WAR): 127, 128, carapace and abdomen, dorsal view; 129, cephalothorax, lateral view; 130, eyes, dorsal view; 131, mouthparts, ventral view; 132, 133, cephalothorax and abdomen, ventral view; 134, leg I, prolateral view; 135, leg I, retrolateral view; 136, spermathecae, dorsal view. Scale bars = 2.0 mm (127, 128, 134), 0.5 mm (136).

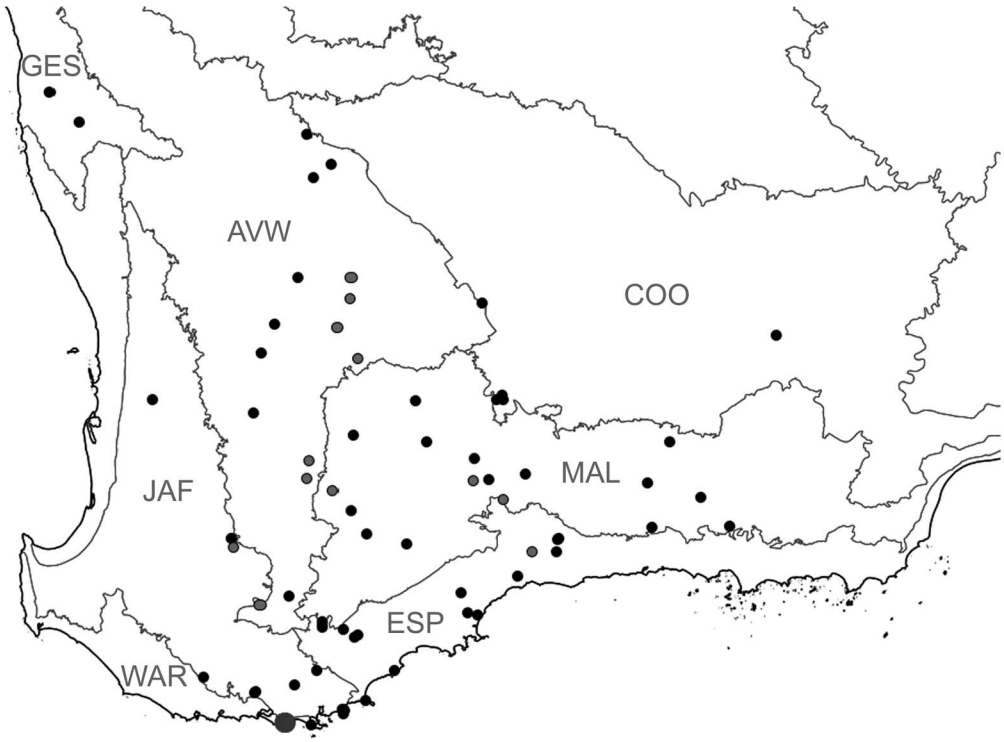
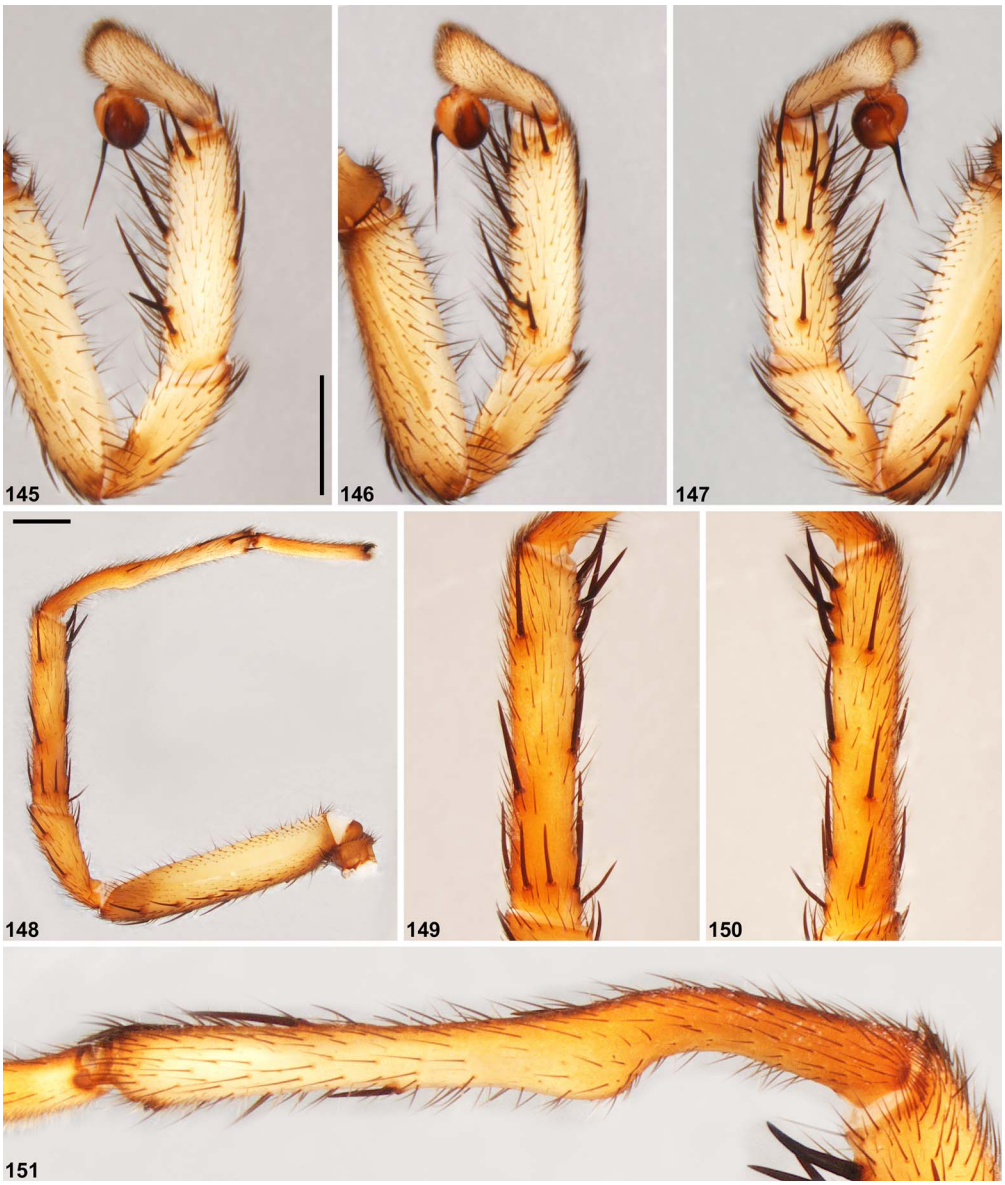


Figure 137.—Map showing collection records of *Teyl howensis* sp. nov. (large circle), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.

Figures 138–144.—*Teyl humphreysi* sp. nov., male holotype (WAM T16333) from Woodline (Western Australia; COO), body: 138, 139, carapace and abdomen, dorsal view; 140, cephalothorax, lateral view; 141, eyes, dorsal view; 142, mouthparts, ventral view; 143, 144, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 145–151.—*Teyl humphreysi* sp. nov., male holotype (WAM T16333) from Woodline (Western Australia; COO), pedipalp and leg I: 145, pedipalp, retrolateral view; 146, pedipalp, retroventral view; 147, pedipalp, prolateral view; 148, leg I, prolateral view; 149, tibia I, prolateral view; 150, tibia I, retrolateral view; 151, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

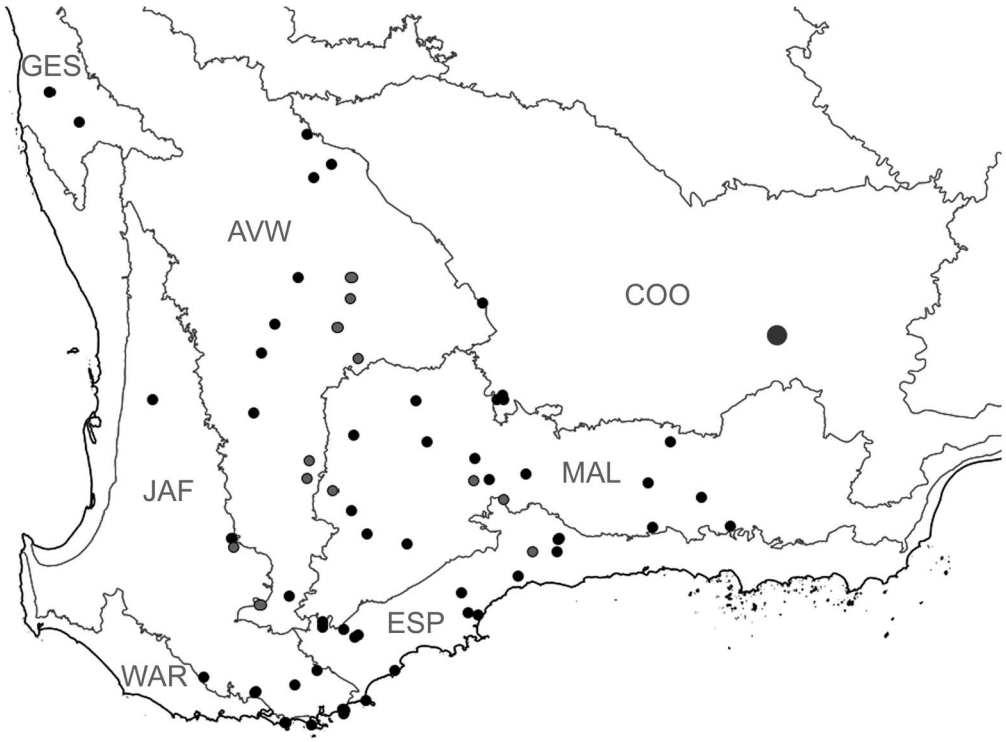
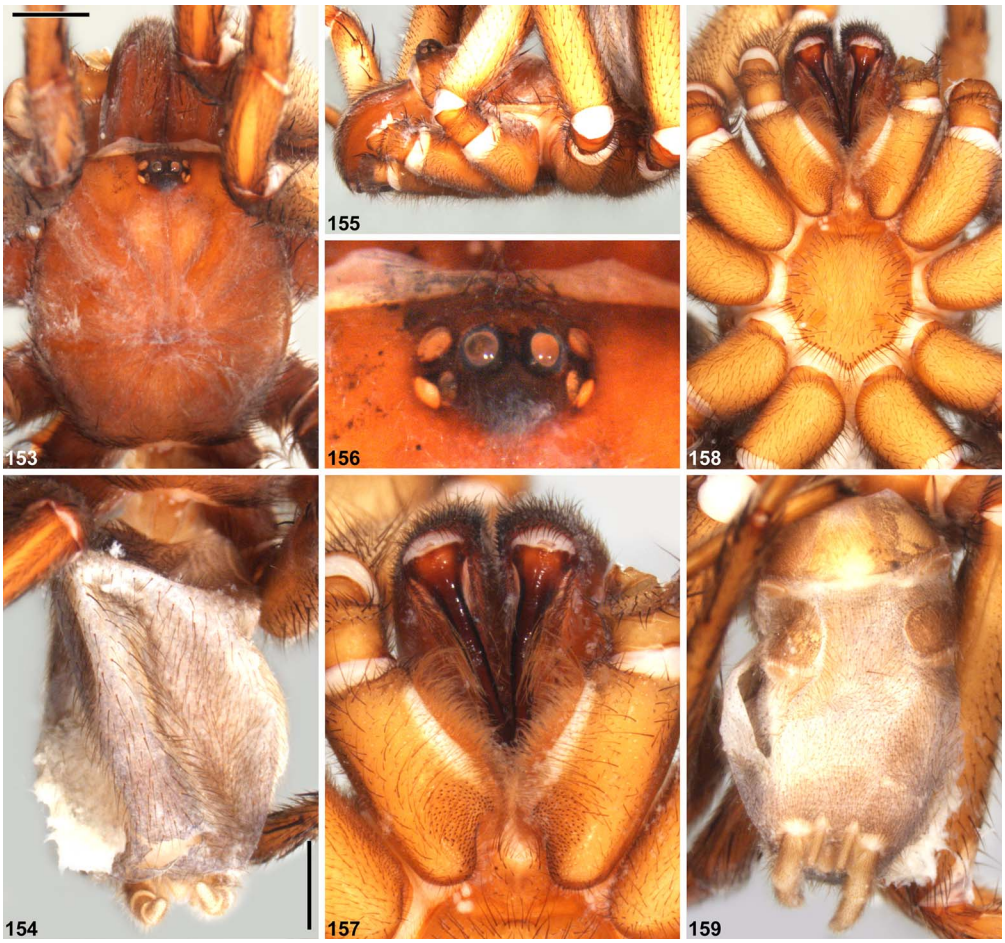
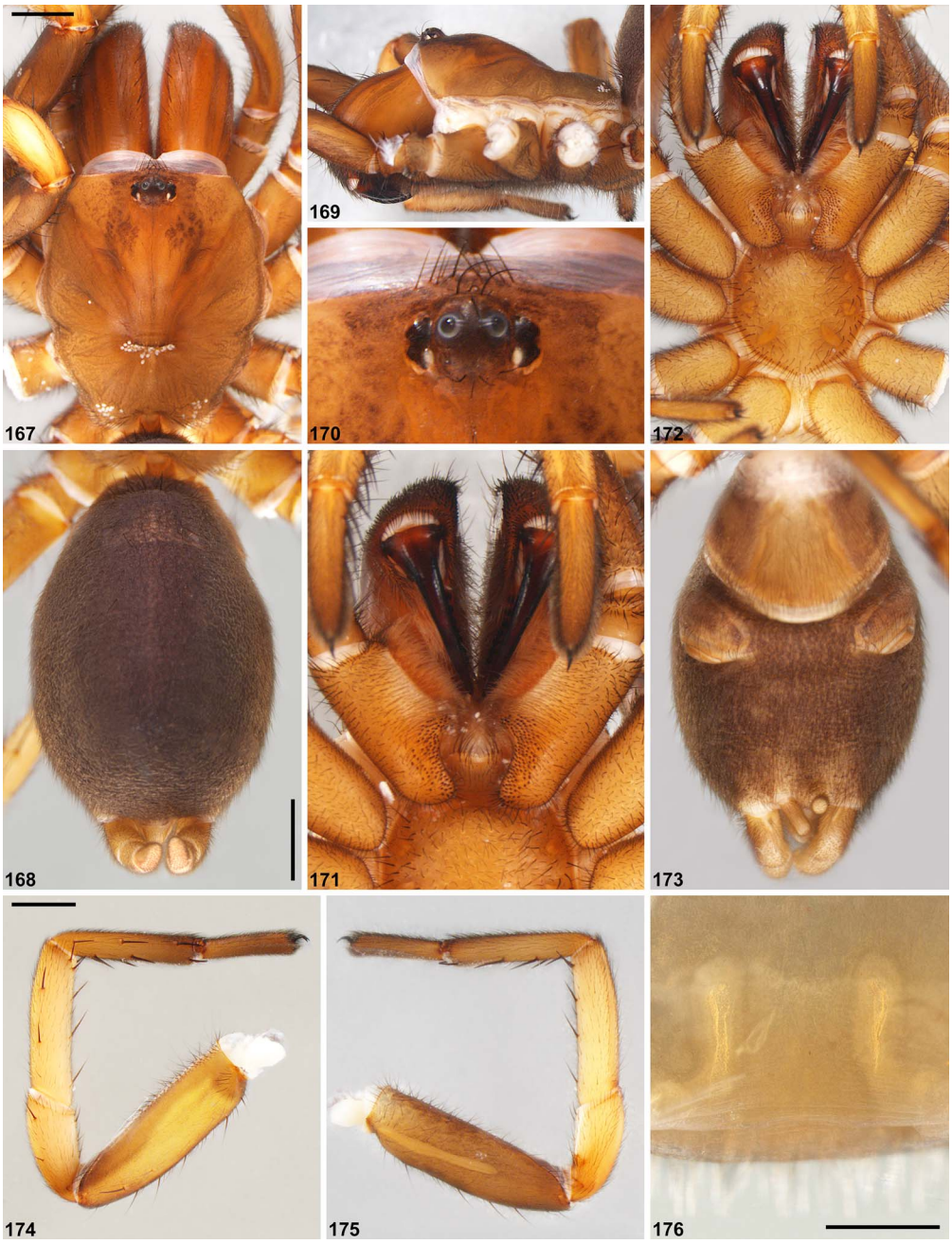


Figure 152.—Map showing collection records of *Teyl humphreysi* sp. nov. (large circle), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.



Figures 153–159.—*Teyl ignicans* sp. nov., male holotype (WAM T44278) from Stirling Range Caravan Park (Western Australia; ESP), body: 153,154, carapace and abdomen, dorsal view; 155, cephalothorax, lateral view; 156, eyes, dorsal view; 157, mouthparts, ventral view; 158, 159, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 160–166.—*Teyl ignicans* sp. nov., male holotype (WAM T44278) from Stirling Range Caravan Park (Western Australia; ESP), pedipalp and leg I: 160, pedipalp, retrolateral view; 161, pedipalp, retroventral view; 162, pedipalp, prolateral view; 163, leg I, prolateral view; 164, tibia I, prolateral view; 165, tibia I, retrolateral view; 166, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.



Figures 167–176.—*Teyl ignicans* sp. nov., tentatively linked female (WAM T147594) from Stirling Range National Park (Western Australia; ESP): 167, 168, carapace and abdomen, dorsal view; 169, cephalothorax, lateral view; 170, eyes, dorsal view; 171, mouthparts, ventral view; 172, 173, cephalothorax and abdomen, ventral view; 174, leg I, prolateral view; 175, leg I, retrolateral view; 176, spermathecae, dorsal view. Scale bars = 2.0 mm (167, 168, 174), 0.5 mm (176).

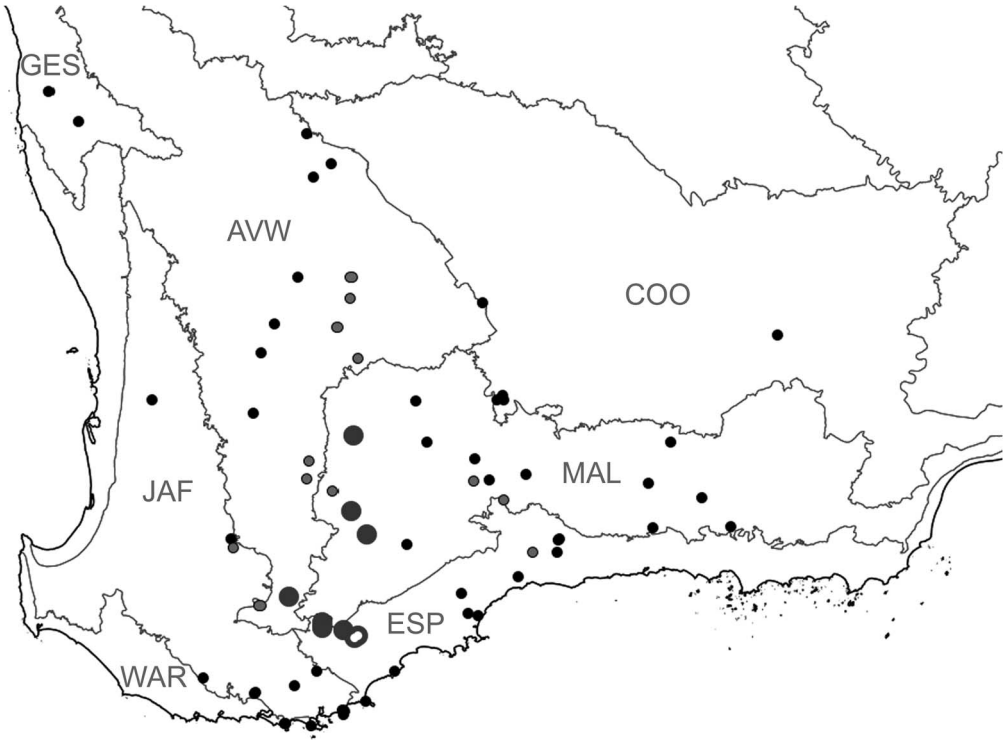
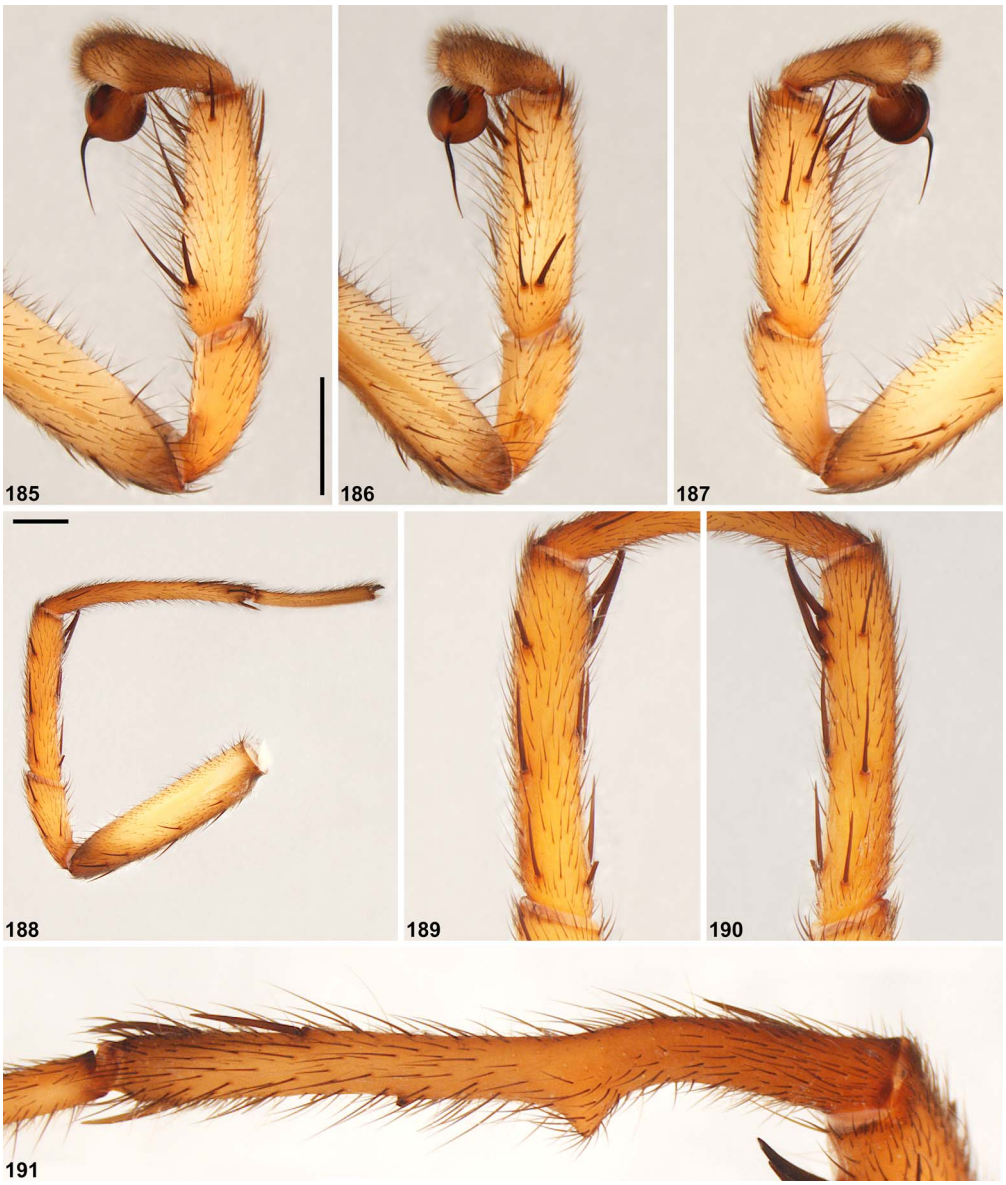


Figure 177.—Map showing collection records of *Teyl ignicans* sp. nov. (large circles), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.

Figures 178–184.—*Teyl kwonganensis* sp. nov., male holotype (WAM T34296) from Eneabba (Western Australia; GES), body: 178,179, carapace and abdomen, dorsal view; 180, cephalothorax, lateral view; 181, eyes, dorsal view; 182, mouthparts, ventral view; 183, 184, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 185–191.—*Teyl kwonganensis* sp. nov., male holotype (WAM T34296) from Eneabba (Western Australia; GES), pedipalp and leg I: 185, pedipalp, retrolateral view; 186, pedipalp, retroventral view; 187, pedipalp, prolateral view; 188, leg I, prolateral view; 189, tibia I, prolateral view; 190, tibia I, retrolateral view; 191, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

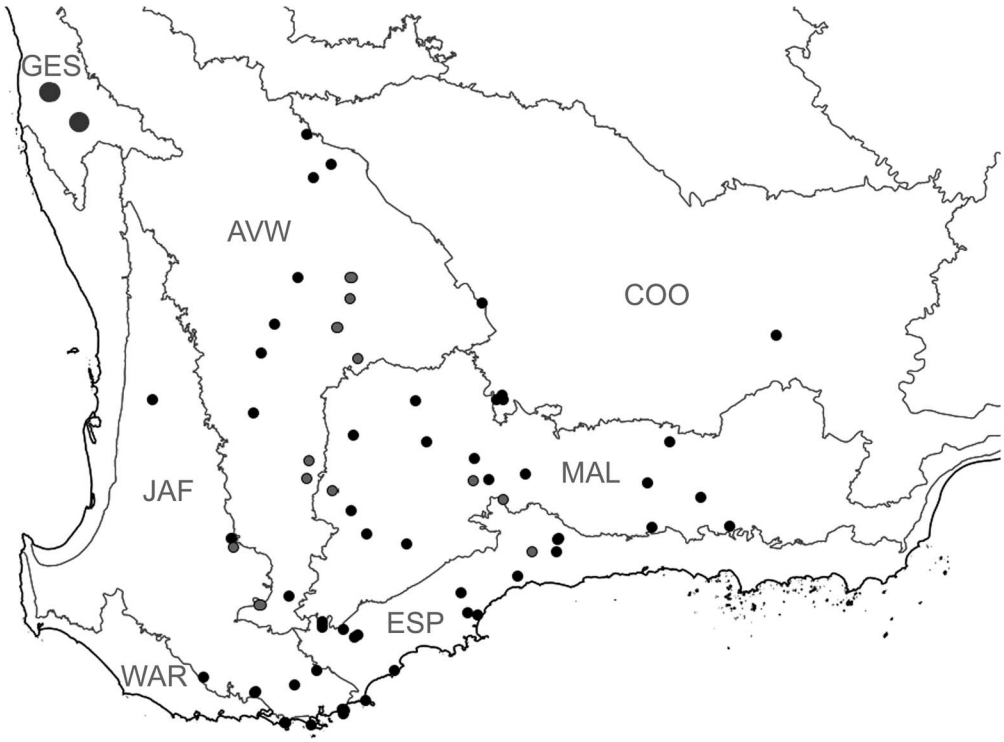
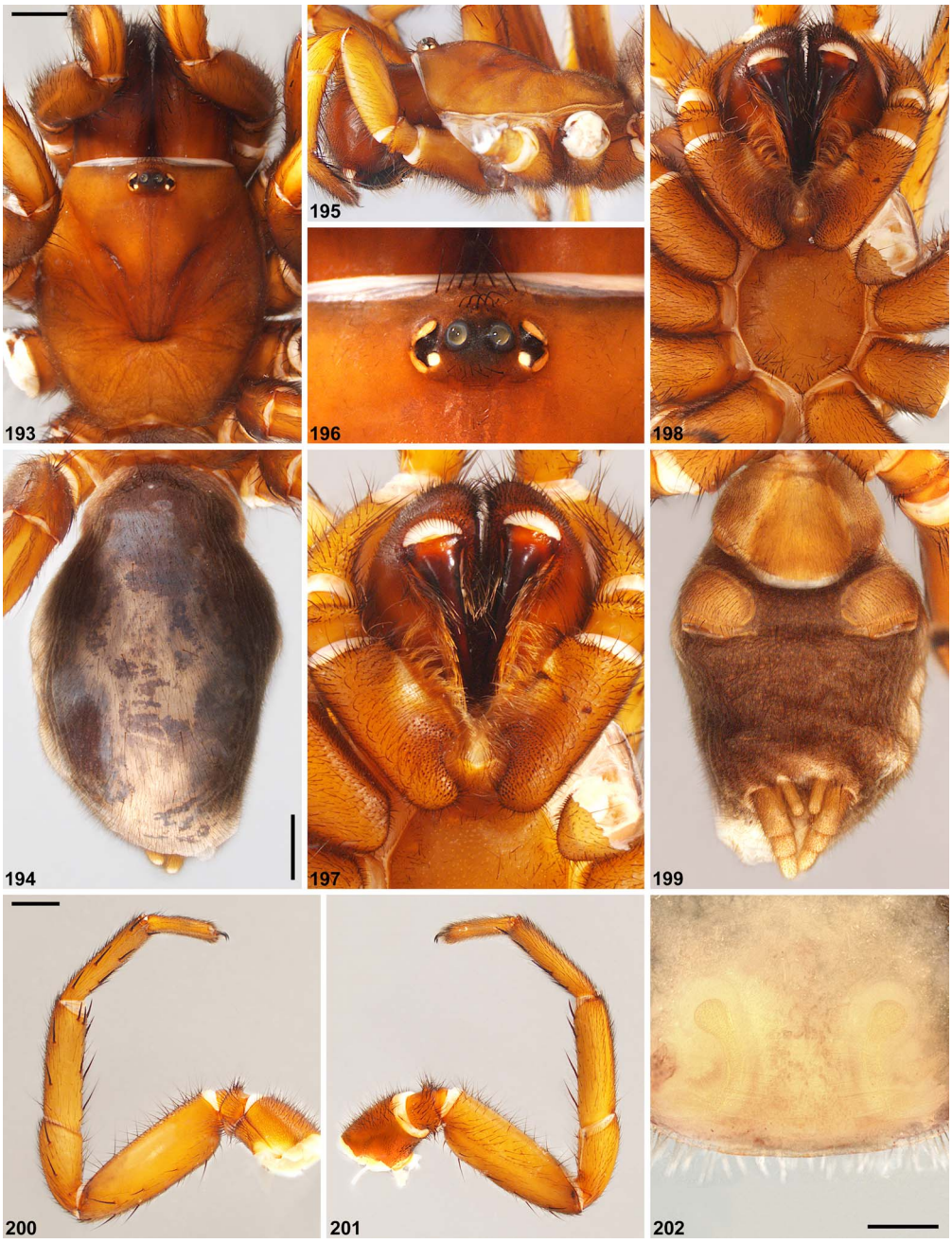


Figure 192.—Map showing collection records of *Teyl kwonganensis* sp. nov. (large circles), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.



Figures 193–202.—*Teyl lengae* sp. nov., female holotype (WAM T80899) from Ravensthorpe Range (Western Australia; ESP): 193, 194, carapace and abdomen, dorsal view; 195, cephalothorax, lateral view; 196, eyes, dorsal view; 197, mouthparts, ventral view; 198, 199, cephalothorax and abdomen, ventral view; 200, leg I, prolateral view; 201, leg I, retrolateral view; 202, spermathecae, dorsal view. Scale bars = 2.0 mm (193, 194, 200), 0.5 mm (202).

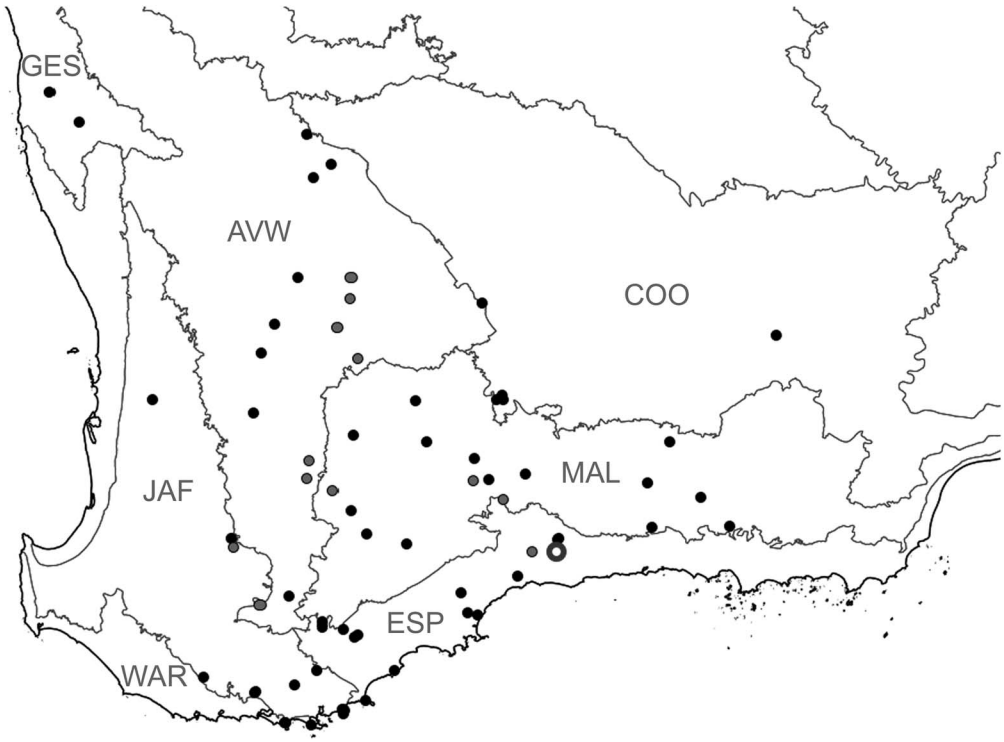
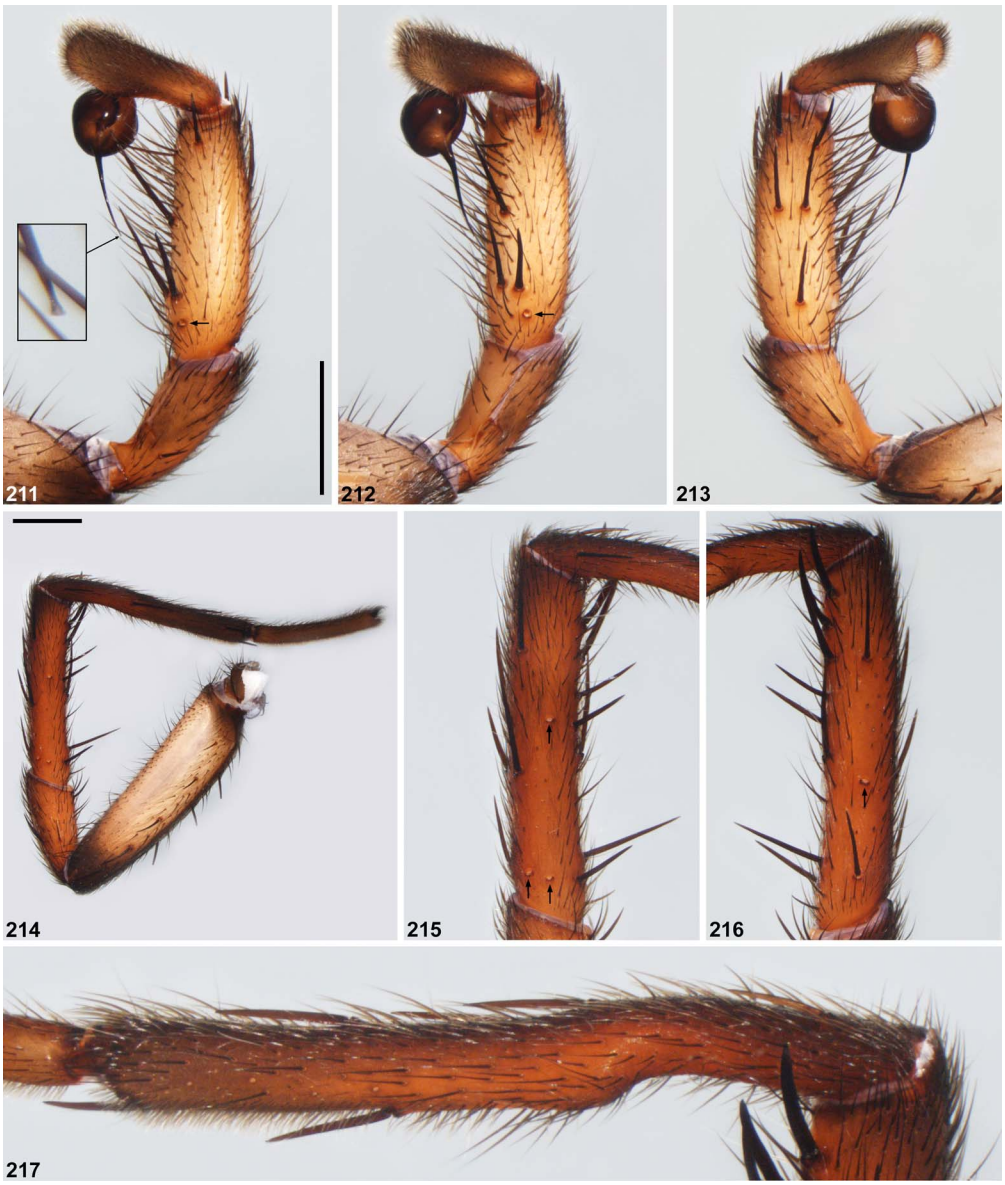
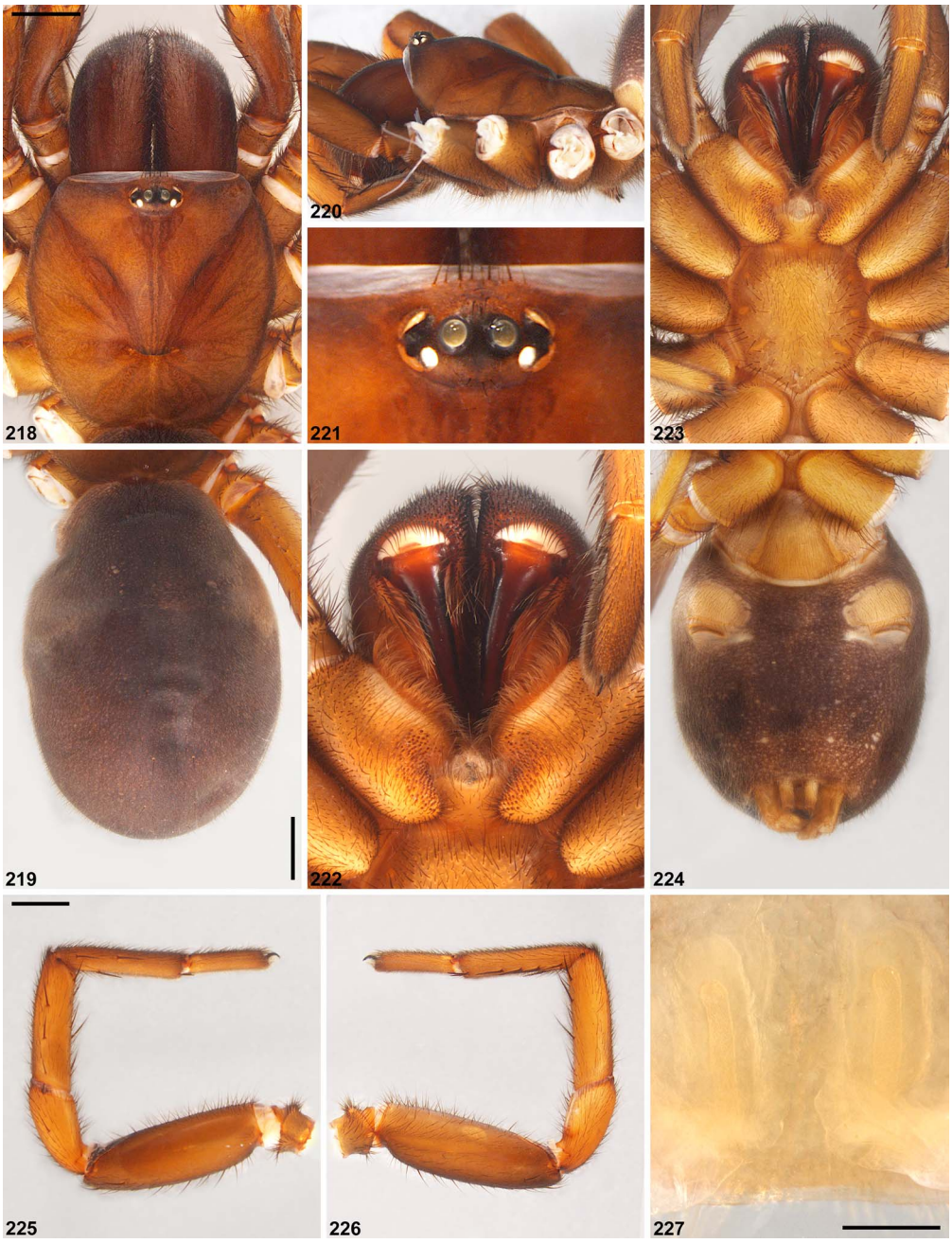


Figure 203.—Map showing collection records of *Teyl lengae* sp. nov. (large circle), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.

Figures 204–210.—*Teyl loxleyae* sp. nov., male holotype (WAM T136022) from Two Peoples Bay Nature Reserve (Western Australia; JAF), body: 204, 205, carapace and abdomen, dorsal view; 206, cephalothorax, lateral view; 207, eyes, dorsal view; 208, mouthparts, ventral view; 209, 210, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 211–217.—*Teyl loxleyae* sp. nov., male holotype (WAM T136022) from Two Peoples Bay Nature Reserve (Western Australia; JAF), pedipalp and leg I: 211, pedipalp, retrolateral view (inset showing detail of tip of embolus); 222, pedipalp, retroventral view; 223, pedipalp, prolateral view; 224, leg I, prolateral view; 225, tibia I, prolateral view; 226, tibia I, retrolateral view; 227, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Arrows denote missing macrosetae. Scale bars = 2.0 mm.



Figures 218–227.—*Teyl loxleyae* sp. nov., tentatively linked female (WAM T143507) from Two Peoples Bay Nature Reserve (Western Australia; JAF): 218, 219, carapace and abdomen, dorsal view; 220, cephalothorax, lateral view; 221, eyes, dorsal view; 222, mouthparts, ventral view; 223, 224, cephalothorax and abdomen, ventral view; 225, leg I, prolateral view; 226, leg I, retrolateral view; 227, spermathecae, dorsal view. Scale bars = 2.0 mm (218, 219, 225), 0.5 mm (227).

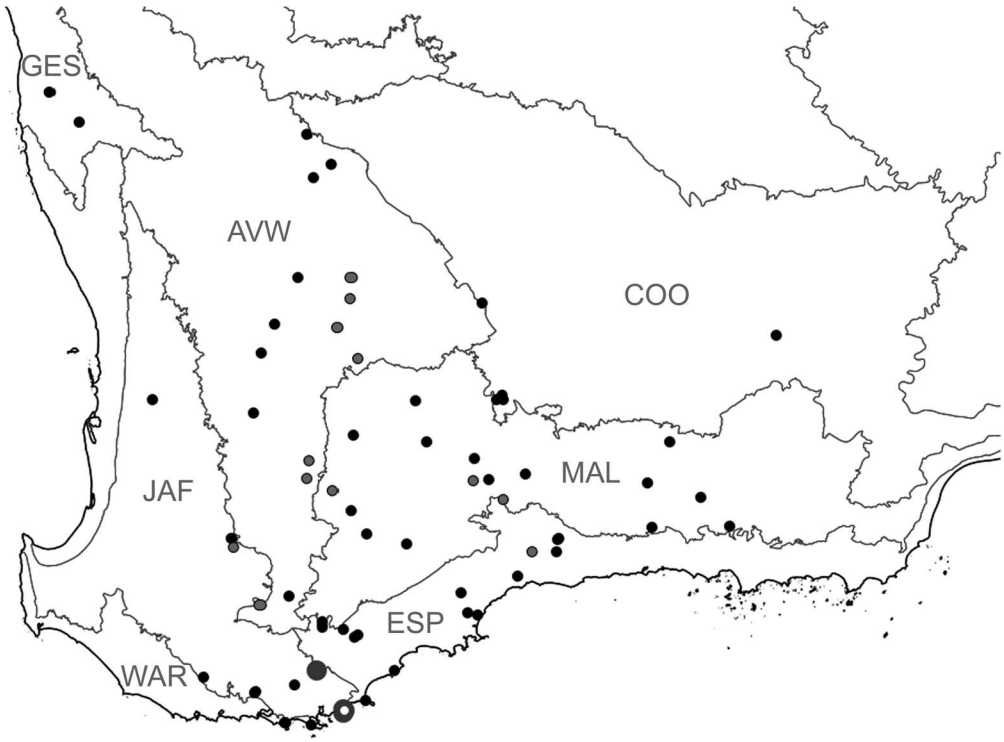
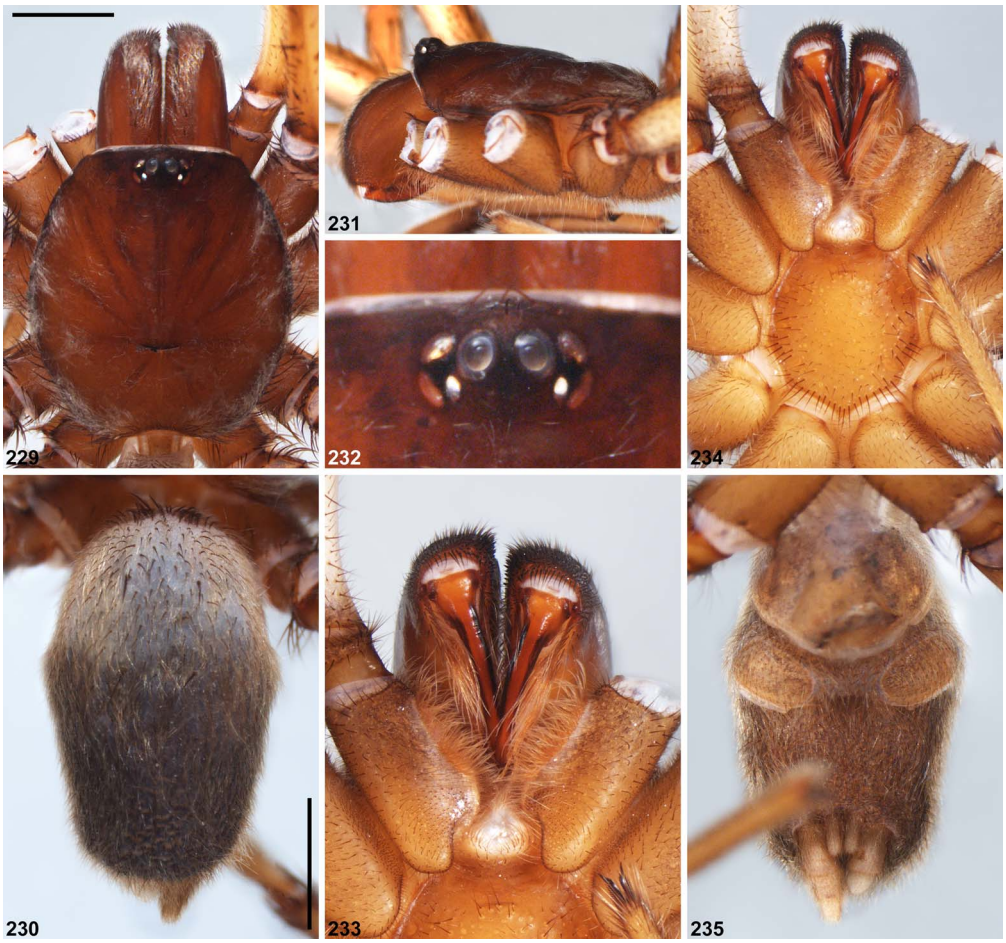
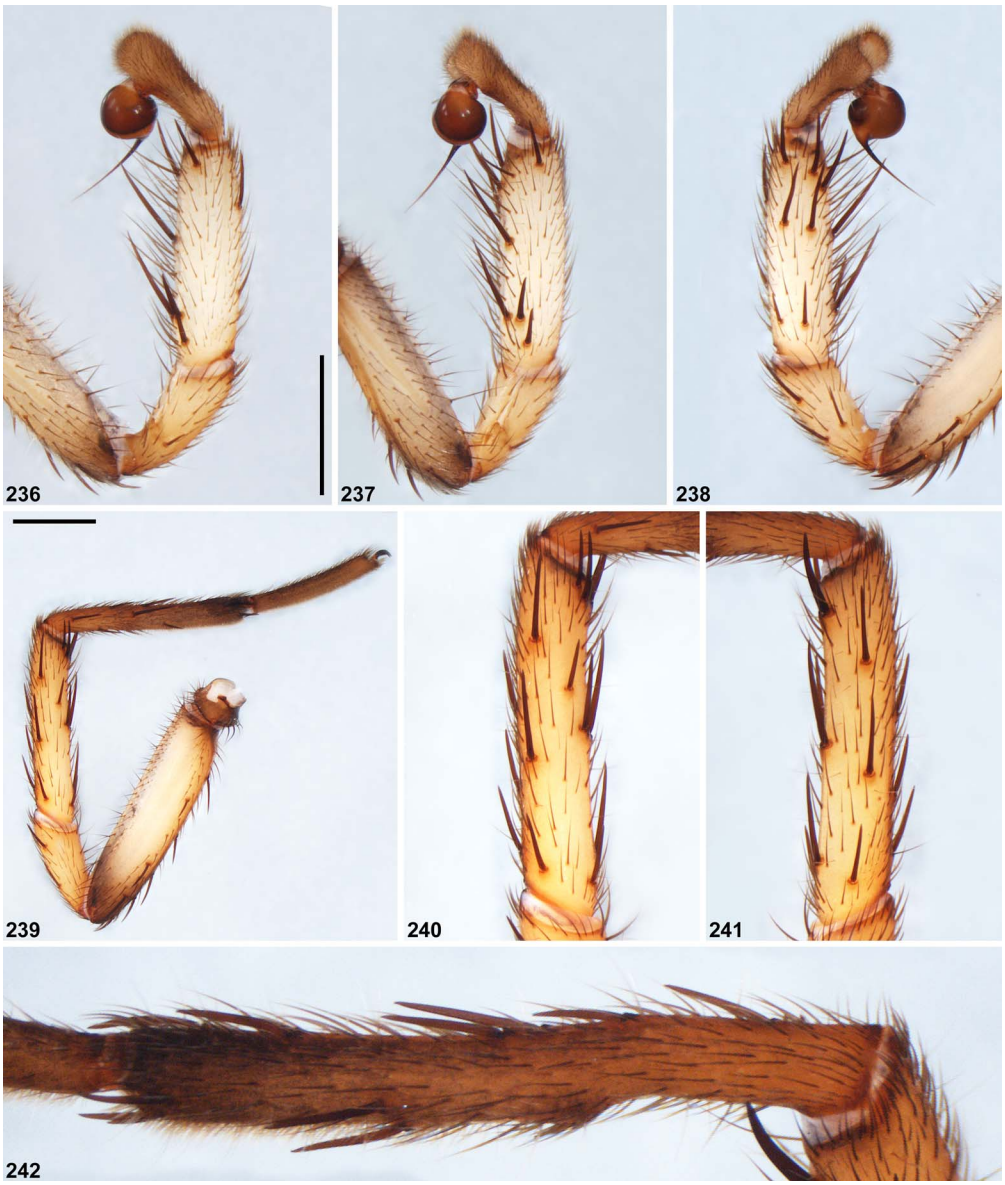


Figure 228.—Map showing collection records of *Teyl loxleyae* sp. nov. (large circles), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.



Figures 229–235.—*Teyl melindae* sp. nov., male holotype (WAM T143094) from Mount Lindesay (Western Australia; JAF), body: 229, 230, carapace and abdomen, dorsal view; 231, cephalothorax, lateral view; 232, eyes, dorsal view; 233, mouthparts, ventral view; 234, 235, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 236–242.—*Teyl melindae* sp. nov., male holotype (WAM T143094) from Mount Lindesay (Western Australia; JAF), pedipalp and leg I: 236, pedipalp, retrolateral view; 237, pedipalp, retroventral view; 238, pedipalp, prolateral view; 239, leg I, prolateral view; 240, tibia I, prolateral view; 241, tibia I, retrolateral view; 242, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

Figures 243–252.—*Teyl melindae* sp. nov., female paratype (WAM T145322) from Mount Lindesay (Western Australia; JAF): 243, 244, carapace and abdomen, dorsal view; 245, cephalothorax, lateral view; 246, eyes, dorsal view; 247, mouthparts, ventral view; 248, 249, cephalothorax and abdomen, ventral view; 250, leg I, prolateral view; 251, leg I, retrolateral view; 252, spermathecae, dorsal view. Scale bars = 2.0 mm (243, 244, 250), 0.5 mm (252).

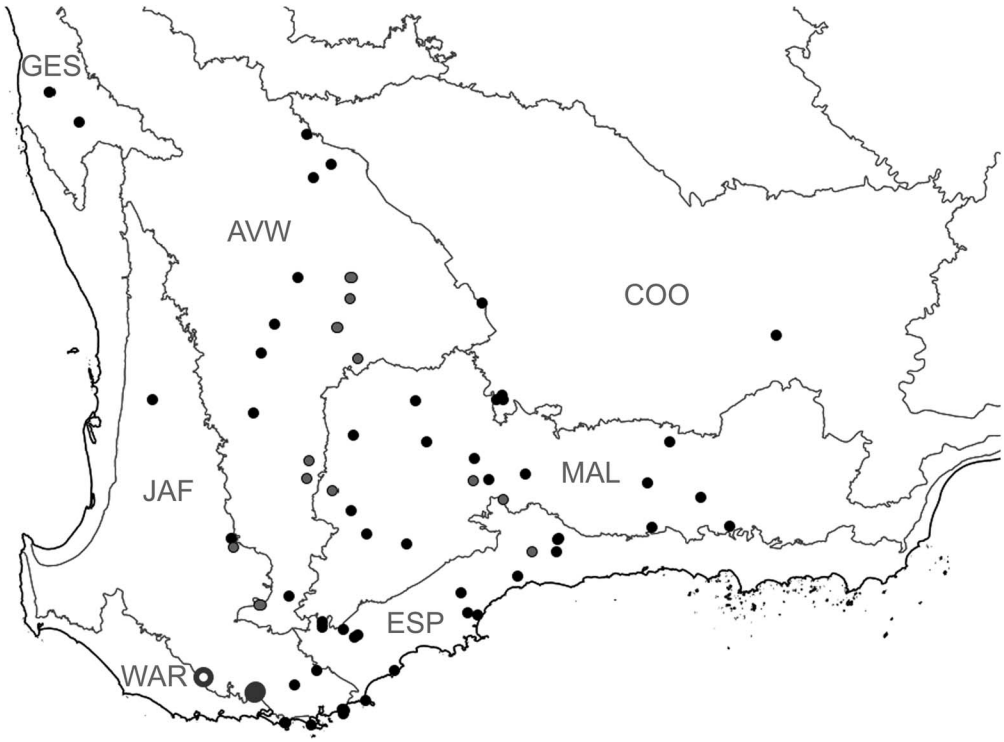
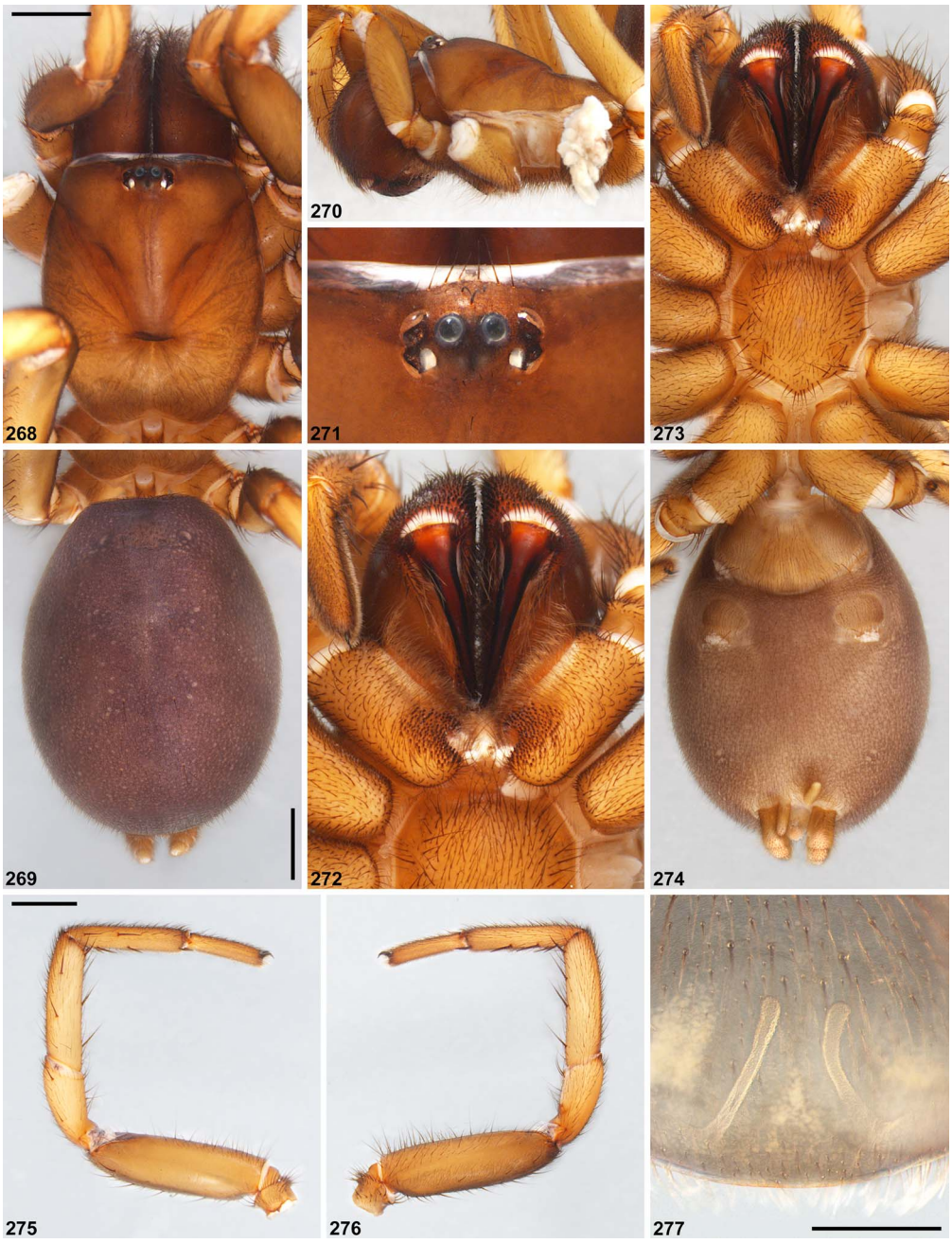


Figure 253.—Map showing collection records of *Teyl melindae* sp. nov. (large circles), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.

Figures 254–260.—*Teyl meridionalis* sp. nov., male holotype (WAM T44281) from Fitzgerald River National Park (Western Australia; ESP), body: 254, 255, carapace and abdomen, dorsal view; 256, cephalothorax, lateral view; 257, eyes, dorsal view; 258, mouthparts, ventral view; 259, 260, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 261–267.—*Teyl meridionalis* sp. nov., male holotype (WAM T44281) from Fitzgerald River National Park (Western Australia; ESP), pedipalp and leg I: 261, pedipalp, retrolateral view; 262, pedipalp, retroventral view; 263, pedipalp, prolateral view; 264, leg I, prolateral view; 265, tibia I, prolateral view; 266, tibia I, retrolateral view; 267, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.



Figures 268–277.—*Teyl meridionalis* sp. nov., tentatively linked female (WAM T78514) from Waychinicup National Park (Western Australia; ESP): 268, 269, carapace and abdomen, dorsal view; 270, cephalothorax, lateral view; 271, eyes, dorsal view; 272, mouthparts, ventral view; 273, 274, cephalothorax and abdomen, ventral view; 275, leg I, prolateral view; 276, leg I, retrolateral view; 277, spermathecae, dorsal view. Scale bars = 2.0 mm (268, 269, 275), 0.5 mm (277).

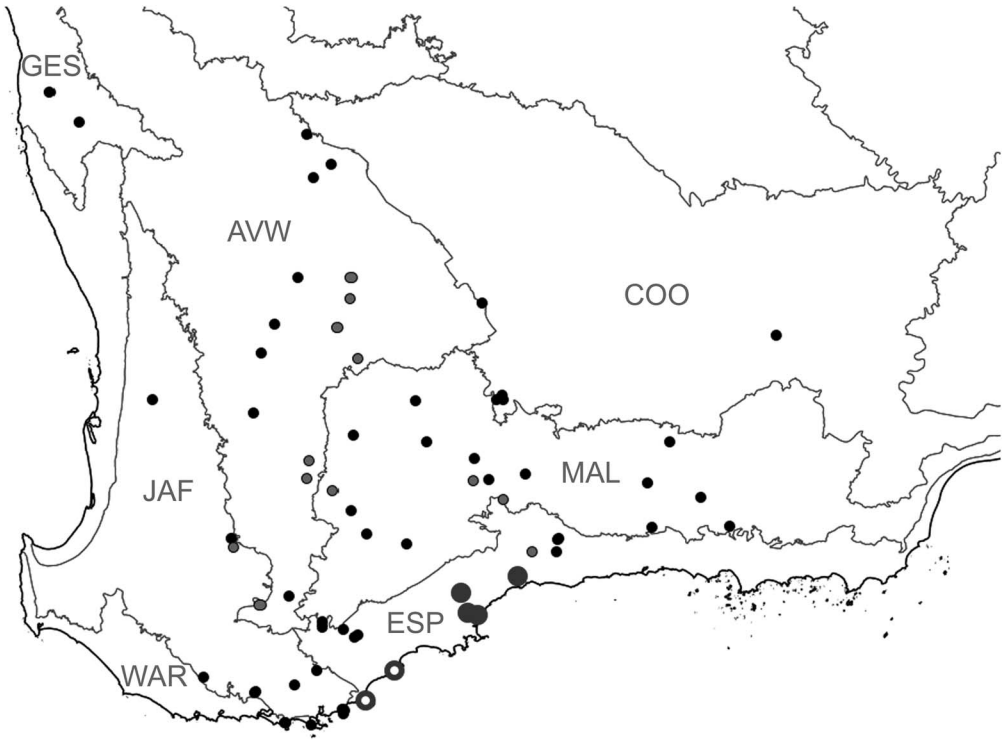


Figure 278.—Map showing collection records of *Teyl meridionalis* sp. nov. (large circles), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.

Figures 279–285.—*Teyl nadineae* sp. nov., male holotype (WAM T147493) from Dragon Rocks Nature Reserve (Western Australia; MAL), body: 279, 280, carapace and abdomen, dorsal view; 281, cephalothorax, lateral view; 282, eyes, dorsal view; 283, mouthparts, ventral view; 284, 285, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 286–292.—*Teyl nadineae* sp. nov., male holotype (WAM T147493) from Dragon Rocks Nature Reserve (Western Australia; MAL), pedipalp and leg I: 286, pedipalp, retrolateral view; 287, pedipalp, retroventral view; 288, pedipalp, prolateral view; 289, leg I, prolateral view; 290, tibia I, prolateral view; 291, tibia I, retrolateral view; 292, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

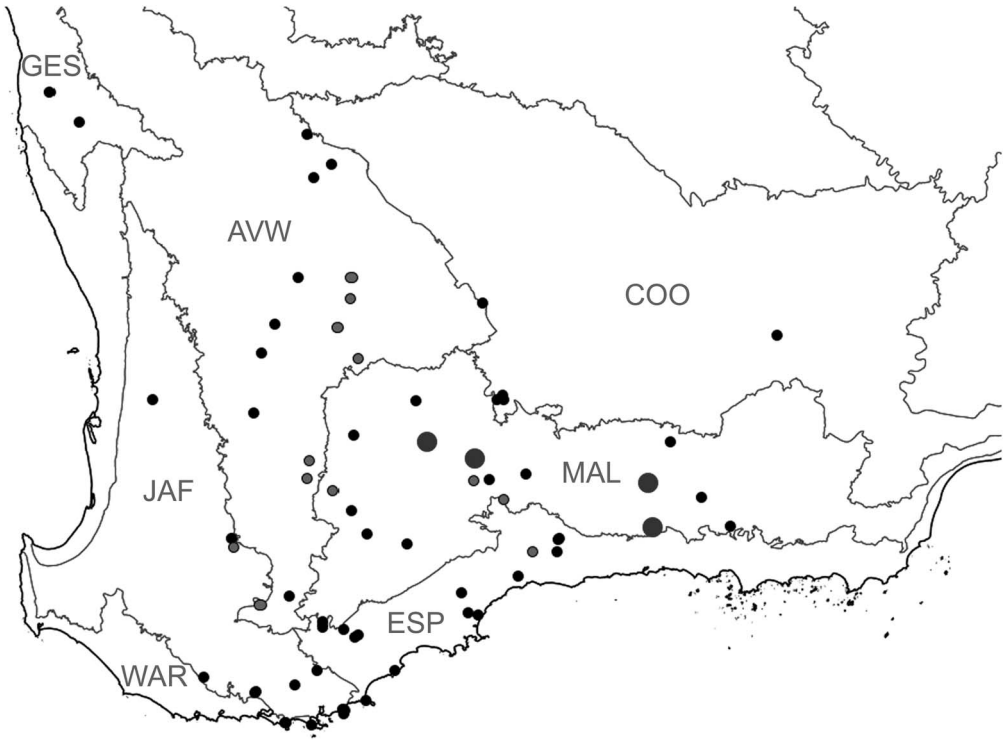


Figure 293.—Map showing collection records of *Teyl nadineae* sp. nov. (large circles), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.

Figures 294–300.—*Teyl narrikupensis* sp. nov., male holotype (WAM T151084) from Narrikup (Western Australia; JAF), body: 294, 295, carapace and abdomen, dorsal view; 296, cephalothorax, lateral view; 297, eyes, dorsal view; 298, mouthparts, ventral view; 299, 300, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.

Figures 301–307.—*Teyl narrikupensis* sp. nov., male holotype (WAM T151084) from Narrikup (Western Australia; JAF), right pedipalp (flipped horizontal for comparison) and leg I: 301, pedipalp, retrolateral view; 302, pedipalp, retroventral view; 303, pedipalp, prolateral view; 304, leg I, prolateral view; 305, tibia I, prolateral view; 306, tibia I, retrolateral view; 307, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

Figures 308–317.—*Teyl narrikupensis* sp. nov., tentatively linked female (WAM T151529) from Narrikup (Western Australia; JAF): 308, 309, carapace and abdomen, dorsal view; 310, cephalothorax, lateral view; 311, eyes, dorsal view; 312, mouthparts, ventral view; 313, 314, cephalothorax and abdomen, ventral view; 315, leg I, prolateral view; 316, leg I, retrolateral view; 317, spermathecae, dorsal view. Scale bars = 2.0 mm (308, 309, 315), 0.5 mm (317).

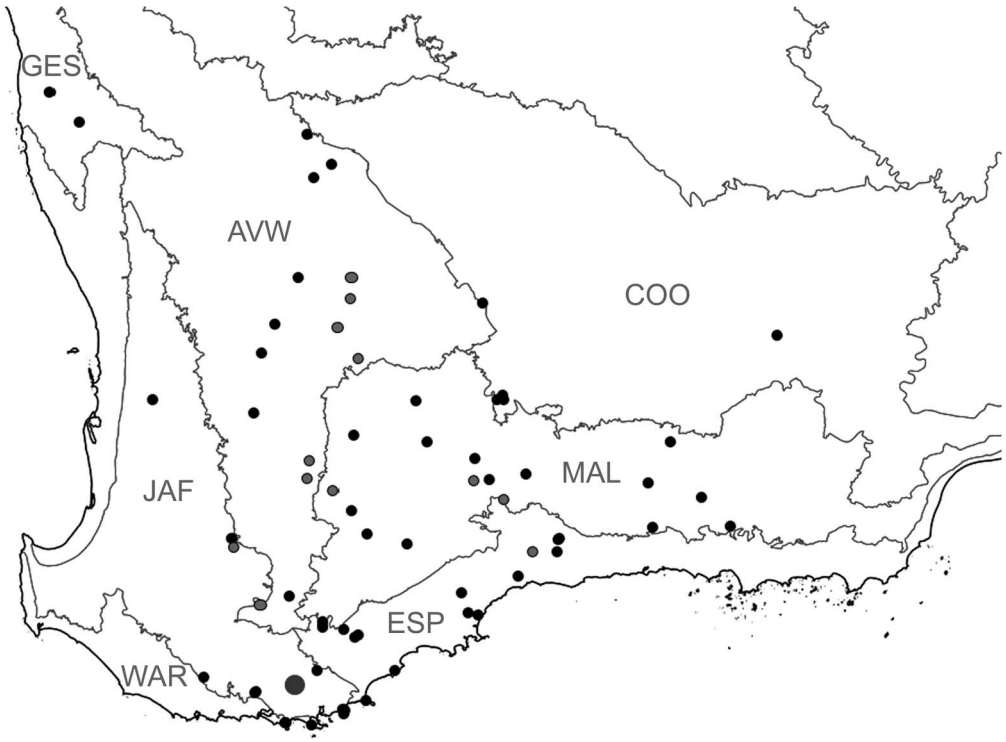
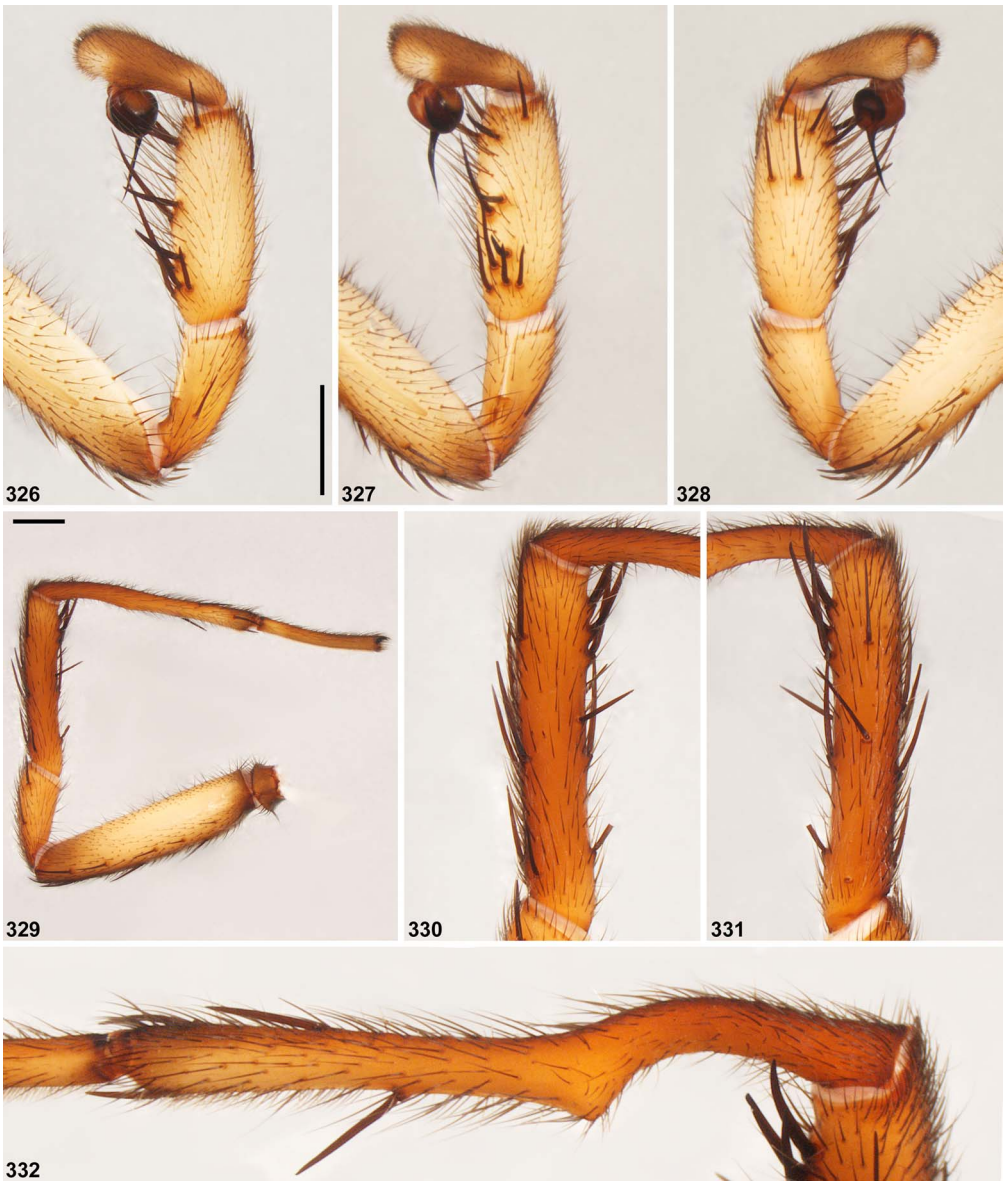
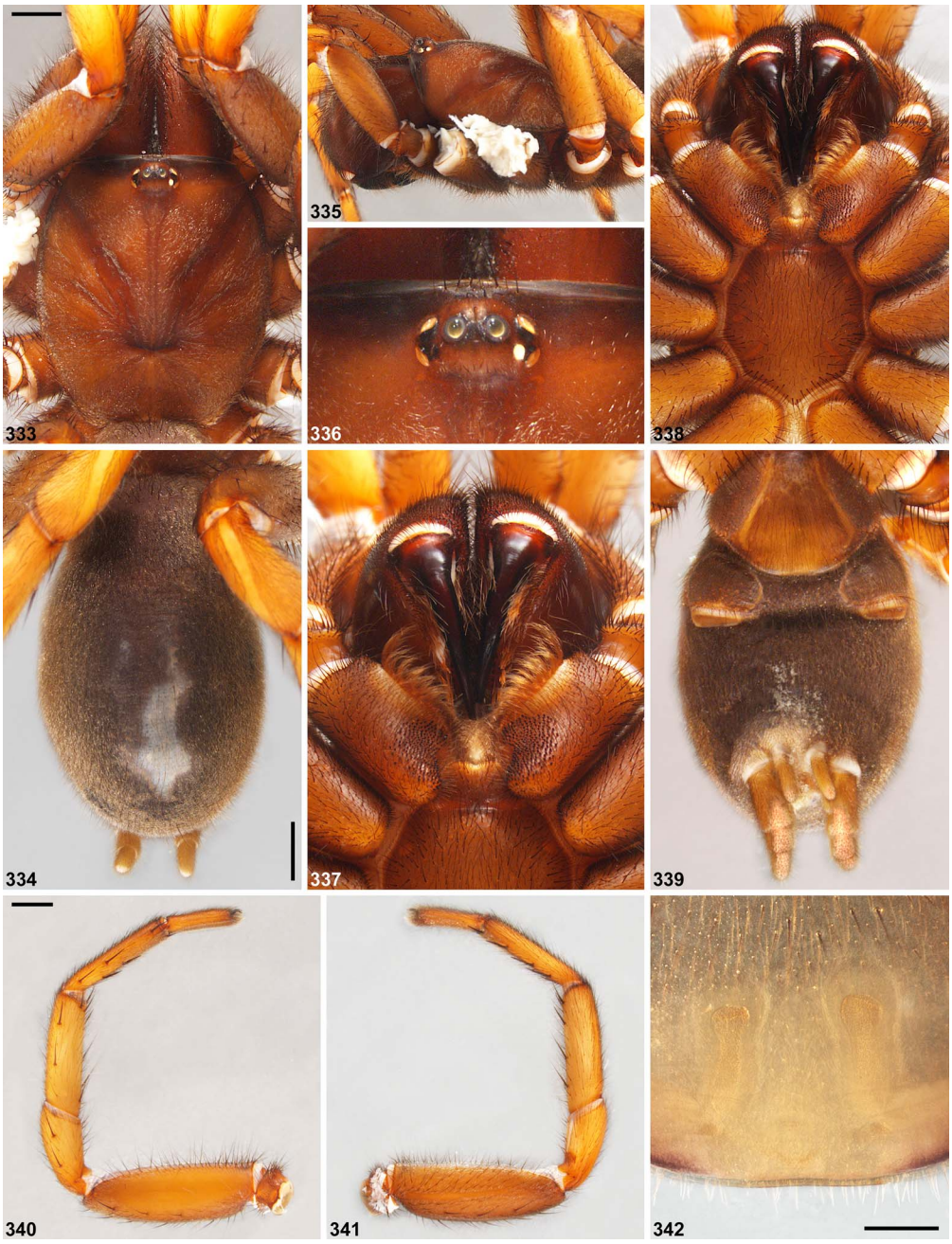


Figure 318.—Map showing collection records of *Teyl narrikupensis* sp. nov. (large circle), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.

Figures 319–325.—*Teyl regalis* sp. nov., male holotype (WAM T137613) from 32 km NW. of Salmon Gums (Western Australia; MAL), body: 319, 320, carapace and abdomen, dorsal view; 321, cephalothorax, lateral view; 322, eyes, dorsal view; 323, mouthparts, ventral view; 324, 325, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 326–332.—*Teyl regalis* sp. nov., male holotype (WAM T137613) from 32 km NW. of Salmon Gums (Western Australia; MAL), pedipalp and leg I: 326, pedipalp, retrolateral view; 327, pedipalp, retroventral view; 328, pedipalp, prolateral view; 329, leg I, prolateral view; 330, tibia I, prolateral view; 331, tibia I, retrolateral view; 332, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.



Figures 333–342.—*Teyl regalis* sp. nov., tentatively linked female (WAM T T145304) from Wittenoon Hill Nature Reserve (Western Australia; MAL): 333, 334, carapace and abdomen, dorsal view; 335, cephalothorax, lateral view; 336, eyes, dorsal view; 337, mouthparts, ventral view; 338, 339, cephalothorax and abdomen, ventral view; 340, leg I, prolateral view; 341, leg I, retrolateral view; 342, spermathecae, dorsal view. Scale bars = 2.0 mm (333, 334, 340), 0.5 mm (342).

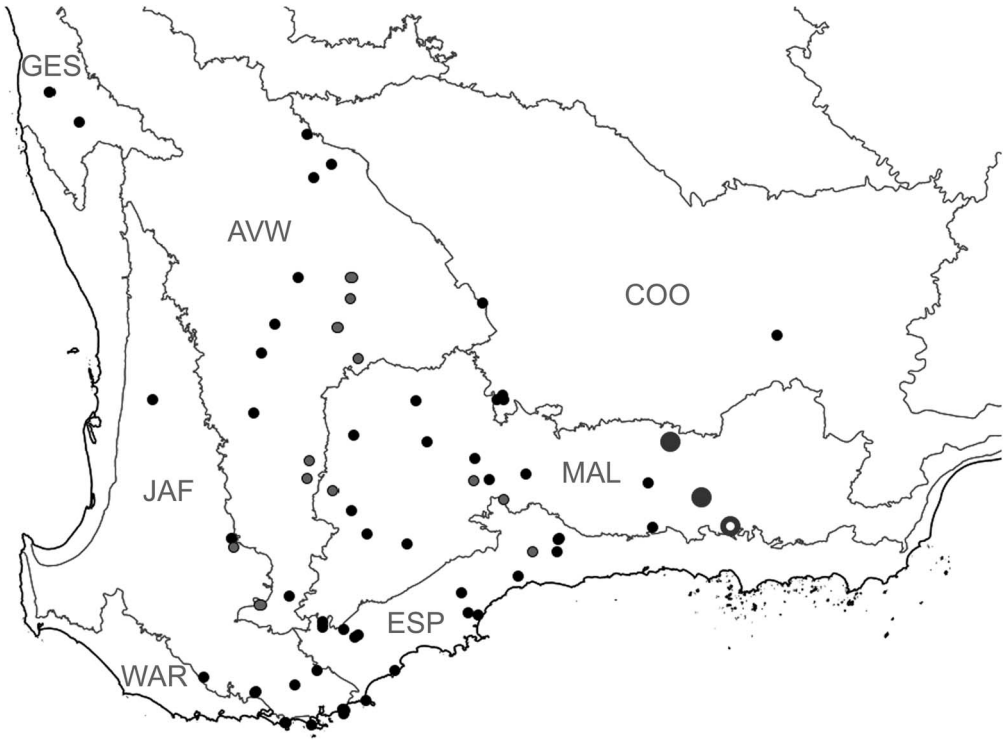
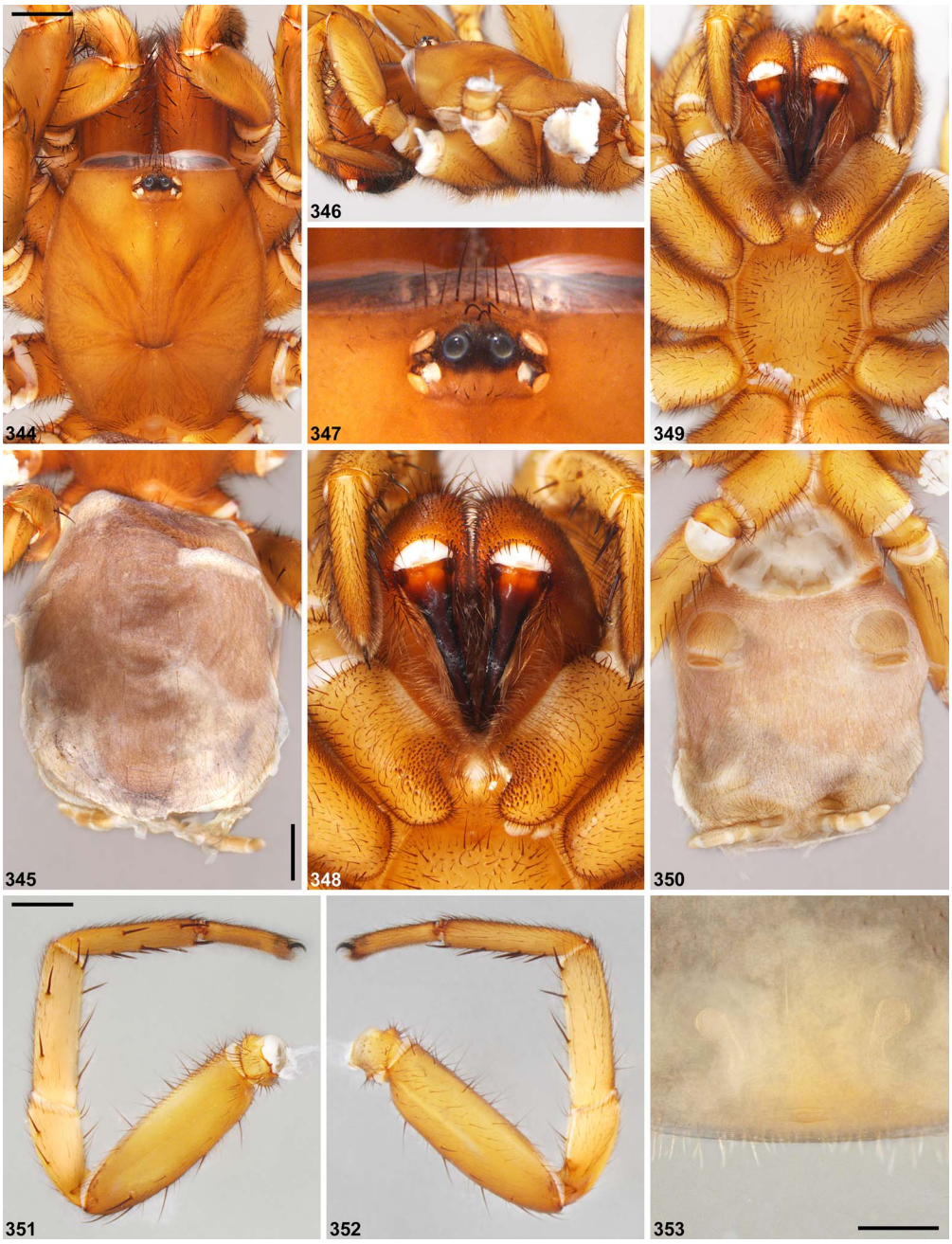


Figure 343.—Map showing collection records of *Teyl regalis* sp. nov. (large circles), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.



Figures 344–353.—*Teyl safferae* sp. nov., female holotype (WAM T T132934) from Mount Caudin (Western Australia; COO): 344, 345, carapace and abdomen, dorsal view; 346, cephalothorax, lateral view; 347, eyes, dorsal view; 348, mouthparts, ventral view; 349, 350, cephalothorax and abdomen, ventral view; 351, leg I, prolateral view; 352, leg I, retrolateral view; 353, spermathecae, dorsal view. Scale bars = 2.0 mm (344, 345, 351), 0.5 mm (353).

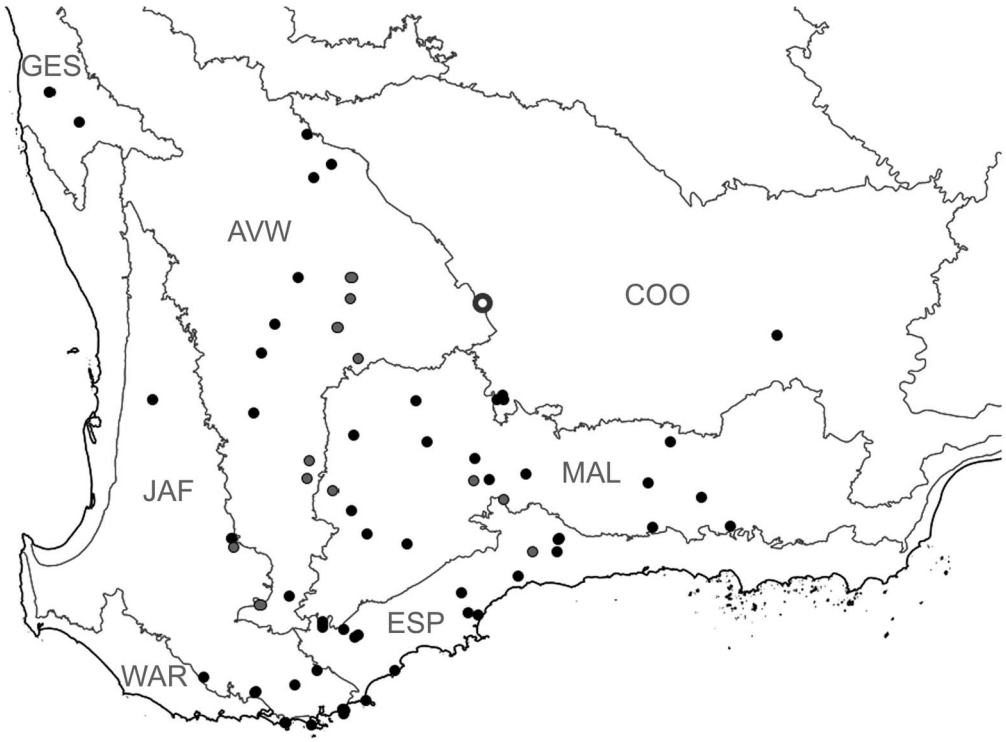
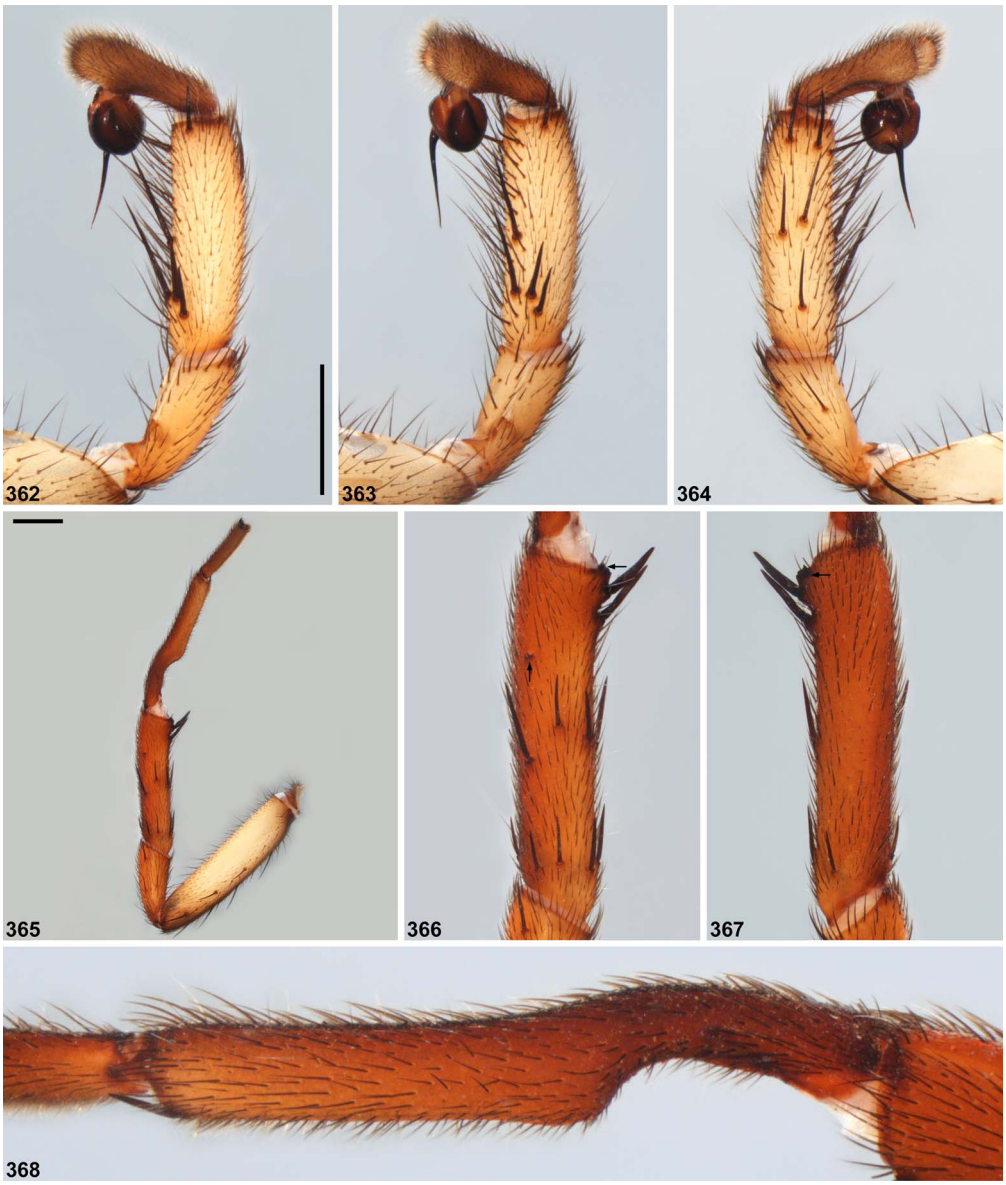


Figure 354.—Map showing collection records of *Teyl safferae* sp. nov. (large circle), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.

Figures 355–361.—*Teyl sampeyae* sp. nov., male holotype (WAM T32598) from Mount Cooke (Western Australia; JAF), body: 355, 356, carapace and abdomen, dorsal view; 357, cephalothorax, lateral view; 358, eyes, dorsal view; 359, mouthparts, ventral view; 360, 361, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 362–368.—*Teyl sampeyae* sp. nov., male holotype (WAM T32598) from Mount Cooke (Western Australia; JAF), pedipalp and leg I: 362, pedipalp, retrolateral view; 363, pedipalp, retroventral view; 364, pedipalp, prolateral view; 365, leg I, prolateral view; 366, tibia I, prolateral view; 367, tibia I, retrolateral view; 368, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Arrows denote missing macrosetae. Scale bars = 2.0 mm.

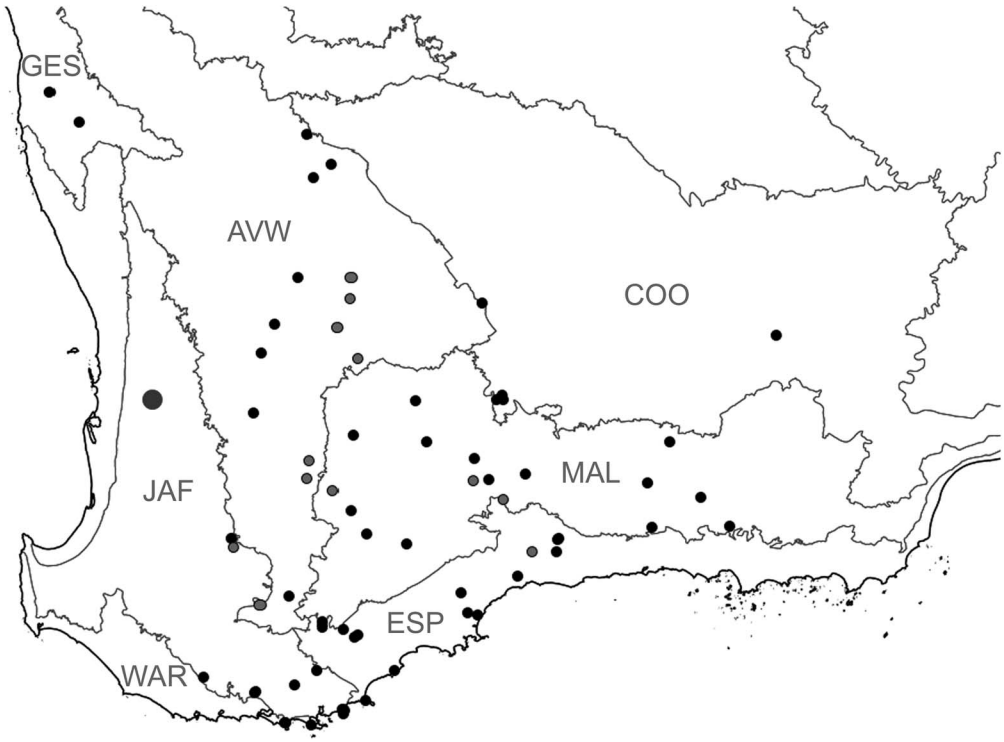
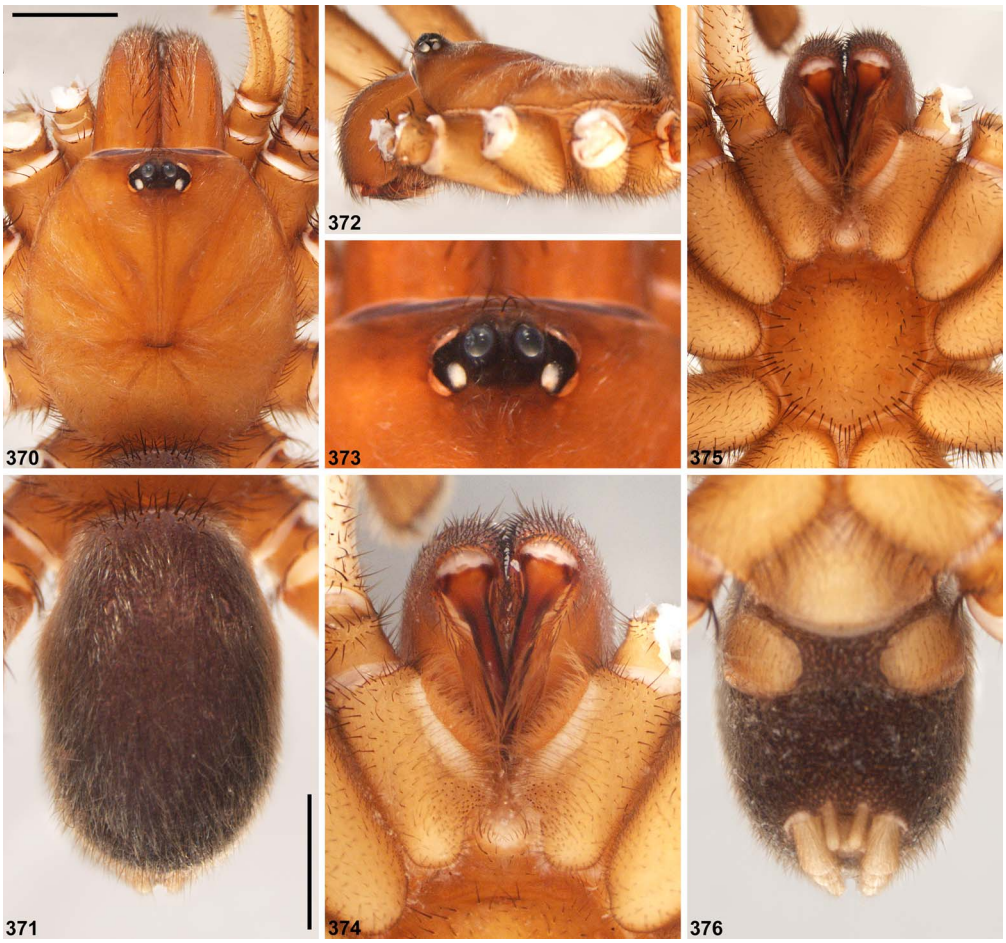
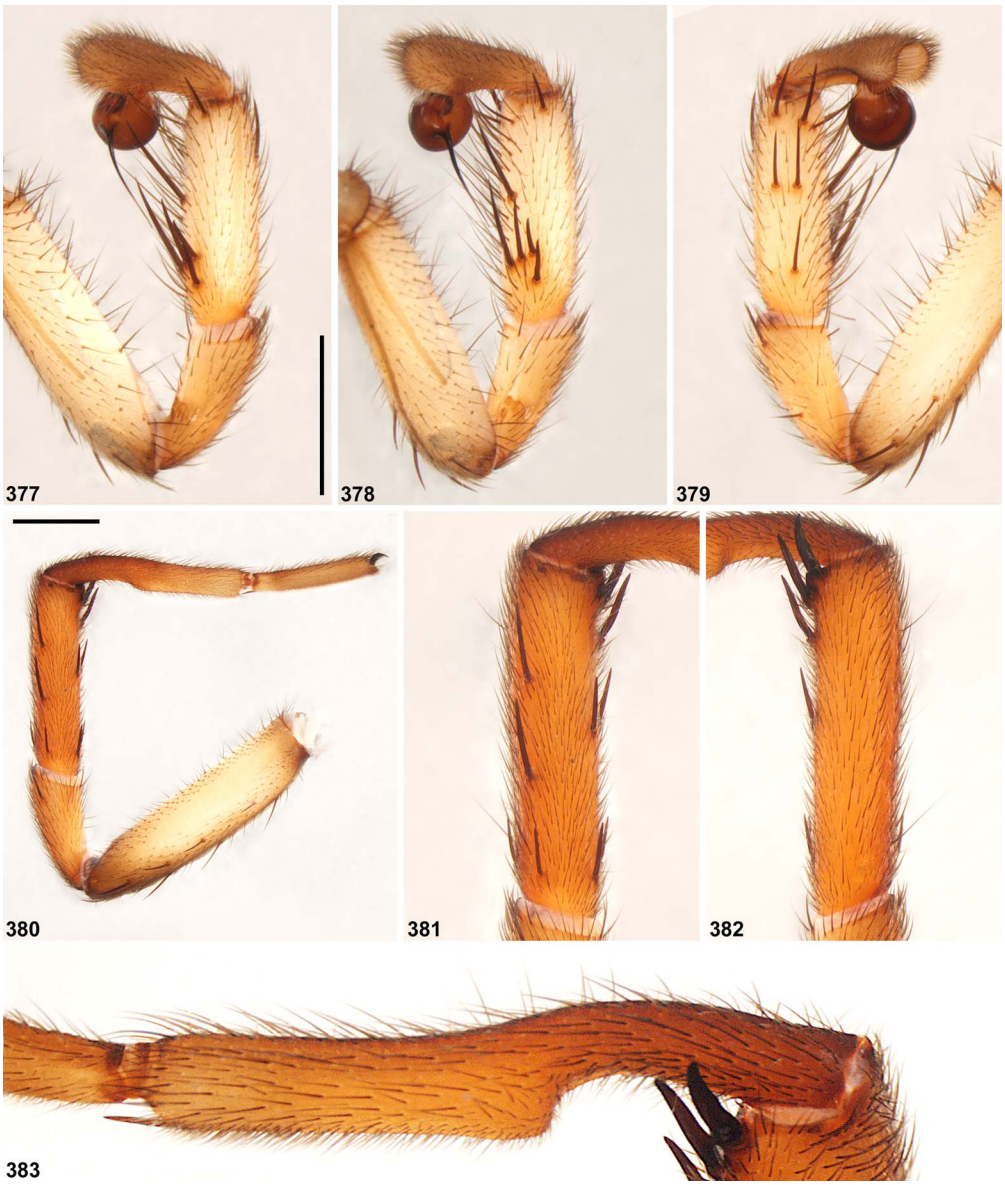


Figure 369.—Map showing collection records of *Teyl sampeyae* sp. nov. (large circle), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.



Figures 370–376.—*Teyl tealei* sp. nov., male holotype (WAM T72719) from 25.5 km E. of Ravensthorpe (Western Australia; ESP), body: 370, 371, carapace and abdomen, dorsal view; 372, cephalothorax, lateral view; 373, eyes, dorsal view; 374, mouthparts, ventral view; 375, 376, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 377–383.—*Teyl tealei* sp. nov., male holotype (WAM T72719) from 25.5 km E. of Ravensthorpe (Western Australia; ESP), pedipalp and leg I: 377, pedipalp, retrolateral view; 378, pedipalp, retroventral view; 379, pedipalp, prolateral view; 380, leg I, prolateral view; 381, tibia I, prolateral view; 382, tibia I, retrolateral view; 383, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

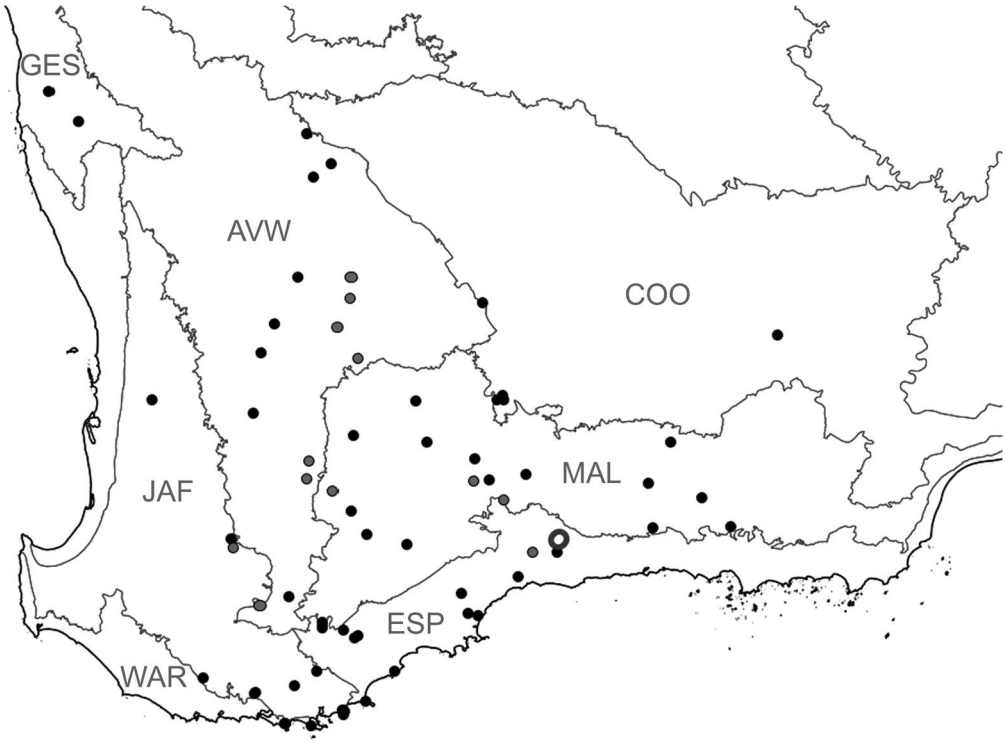
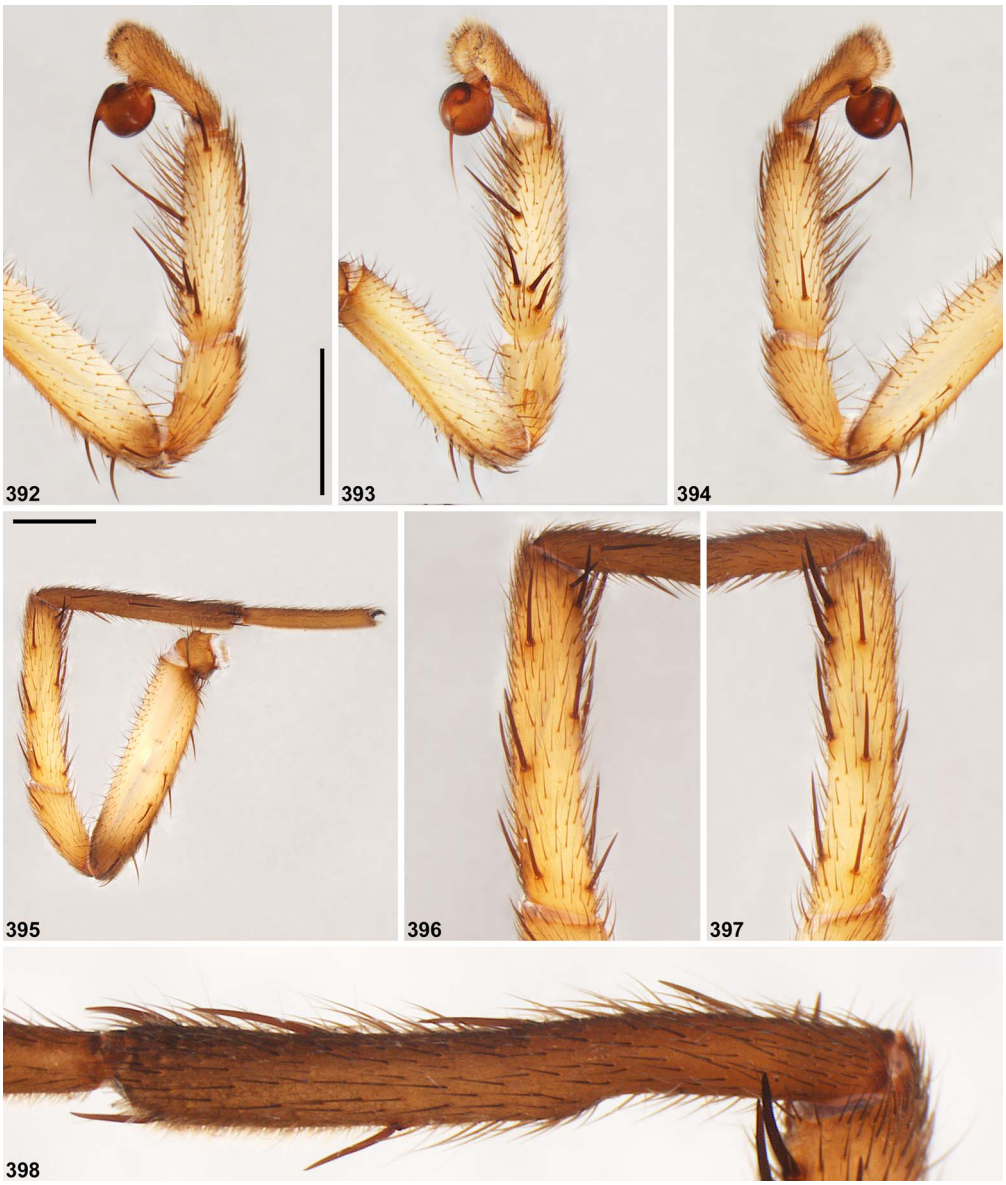


Figure 384.—Map showing collection records of *Teyl tealei* sp. nov. (largecircle), relative to other taxa from southern Western Australia. Records with a white dot denote specimens sequenced for the molecular phylogenetic analysis (Fig. 10). See Figure 11 for IBRA bioregional acronyms.

Figures 385–391.—*Teyl undulites* sp. nov., male holotype (WAM T147347) from near Wave Rock (Western Australia; MAL), body: 385, 386, carapace and abdomen, dorsal view; 387, cephalothorax, lateral view; 388, eyes, dorsal view; 389, mouthparts, ventral view; 390, 391, cephalothorax and abdomen, ventral view. Scale bars = 2.0 mm.



Figures 392–398.—*Teyl undulites* sp. nov., male holotype (WAM T147347) from near Wave Rock (Western Australia; MAL), pedipalp and leg I: 392, pedipalp, retrolateral view; 393, pedipalp, retroventral view; 394, pedipalp, prolateral view; 395, leg I, prolateral view; 396, tibia I, prolateral view; 397, tibia I, retrolateral view; 398, metatarsus I, retrodorsal view, showing bowed proximal portion and protuberance. Scale bars = 2.0 mm.

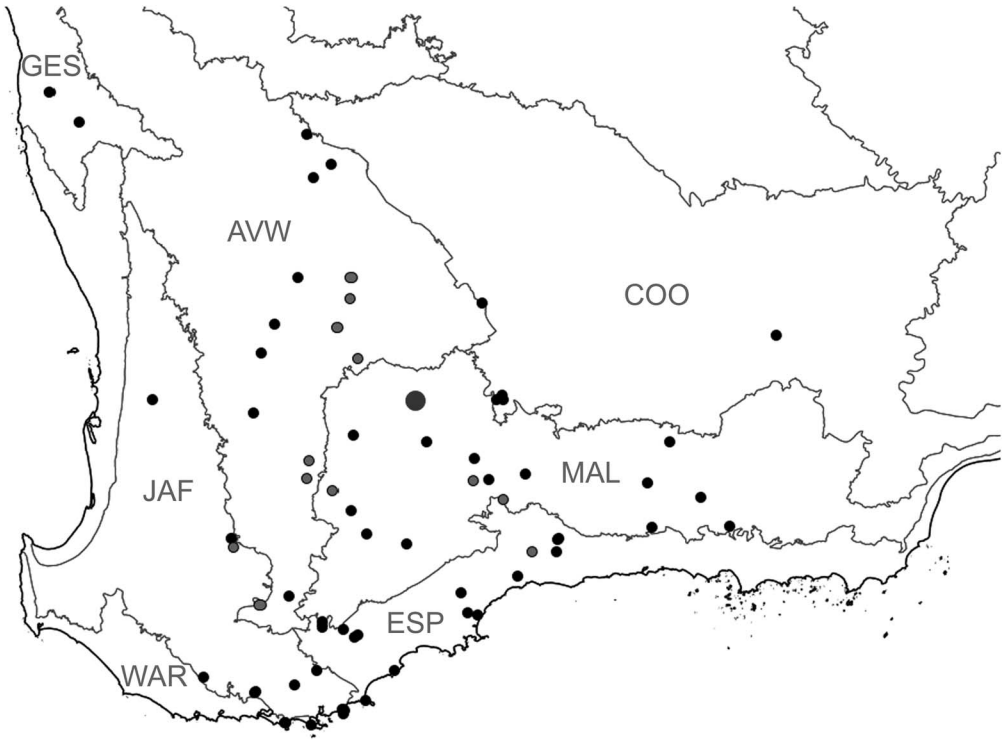


Figure 399.—Map showing collection records of *Teyl undulites* sp. nov. (large circle), relative to other taxa from southern Western Australia. See Figure 11 for IBRA bioregional acronyms.