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David and Goliath: on the pseudoscorpions of Ascension Island, including the world's largest, *Garypus titanius* Beier, 1961, and a new, minute, *Neocheiridium* Beier, 1932 (Arachnida: Pseudoscorpiones)

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Sherwood, D, Grignet, V, Harvey, M. S., Sharp, A. Wilkins, V., Ashmole, M. & Ashmole, Ph. *2024: David and Goliath: on the pseudoscorpions of Ascension Island, including the world's largest, Garypus titanius Beier, 1961, and a new, minute, Neocheiridium Beier, 1932 (Arachnida: Pseudoscorpiones). - Natura Somogyienis 42: 131-150.*

Abstract: An examination of Pseudoscorpiones de Geer, 1778 material, new and old, from Ascension Island – one of the world's most remote islands – revealed six endemic species. Four are previously known from the island: *Apocheiridium cavicola* Mahnert, 1993, *Garypus titanius* Beier, 1961, *Stenowithius duffeyi* Beier, 1961, and *Withius ascensionis* (Beier, 1961), we provide new faunistic records of all these species. *Garypus titanius* is the world's largest pseudoscorpion. Two new species are described, one of the world's largest and one of the smallest, respectively: *Garypus ellickae* Sherwood, Grignet, Harvey, Sharp, Wilkins, M. Ashmole & P. Ashmole **sp. nov.** and *Neocheiridium ashmoleorum* Sherwood, Grignet, Harvey, Sharp & Wilkins **sp. nov**.

Keywords: arachnology, caves, endemics, islands, morphology

Introduction

Ascension Island is a remote Atlantic island, part of the United Kingdom Overseas Territory (UKOT) of Saint Helena, Ascension and Tristan da Cunha. In comparison to its neighbour Saint Helena, Ascension has comparatively lower diversity of endemic invertebrates (Ashmole & Ashmole 2000). Most spiders on the island are invasive (e.g. Sherwood & Sharp 2023), and the two resident scorpion species are also non-native

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(SHERWOOD et al. 2024). However, one group consists of an entirely endemic fauna – its pseudoscorpions (order Pseudoscopriones de Geer, 1778).

Until now, the pseudoscorpions of Ascension were thought to contain five species, two cheiridiids (one undescribed), one garypid, and two withiids. Three of the known species were described in the first taxonomic work on Ascension's pseudoscorpion fauna by BEIER (1961). This included *Allowithius ascensiononis* Beier, 1961, described from a holotype female, *Stenowithus duffeyi* Beier, 1961 described from 18 syntypic adults, and the world's largest pseudoscorpion – *Garypus titanius* Beier, 1961 – based on 30 syntypes (adults and nymphs). The fourth described species was documented by MAHNERT (1993), a cave-restricted species, *Apocheiridium cavicola* Mahnert, 1993, based on an adult male. ASHMOLE & ASHMOLE (1997) reported an undescribed species of *Neocheiridium* Beier, 1932, determined by Volker Mahnert which has hitherto not been described.

Of these species, more than half (*G. titanius, Neocheiridium* sp., *S. duffeyi*) are known only from Boatswain Bird Island, a small islet off the southern coast of Ascension Island. The remaining two species are known only from the main island. Boatswain Bird Island is less than 3 hectares in size, but hosts thousands of nesting birds, including five native species and a significant amount of the population of Ascension's one endemic species (SHORTHOUSE 1960, ASHMOLE & ASHMOLE 2000, ASCENSION ISLAND GOVERNMENT 2024). The large guano deposits resulting from this have proved an optimal habitat for pseudoscorpions.

In this work, we discuss the four previously valid species from Ascension, including a list of all known specimens from Boatswain Bird Island. We also formally describe the *Neocheiridium* first recorded by ASHMOLE & ASHMOLE (1997), and further describe a remarkable new species of *Garypus* L. Koch, 1873 from mainland Ascension, hitherto not detected by previous workers.

Material and methods

Specimens were examined under binocular and compound microscopes. Images were made by DS using a Canon EOS 6D Mark II attached to a Leica MZ12.5 stereomicroscope, with images stacked using Helicon Focus software. Drawings of *Garypus ellickae* **sp. nov.** were made by MSH and DS, those of *Neocheiridium ashmoleorum* **sp. nov.** by VG. Description style for the former species follows HARVEY et al. (2020), and the latter is modified from SAMMET (2020).

Abbreviations: *ASC* = Ascension Island Conservation invertebrate collection, Georgetown, Ascension Island (it is intended in the future that the ASC invertebrate collection will be donated and moved to the Saint Helena National Trust, Jamestown, Saint Helena); *BMNH* = Natural History Museum, London, United Kingdom; *coll.* = collector; *colln.* = collection; *det.* = determined by; *MHNG* = Muséum d'histoire naturelle de Genève, Geneva, Switzerland; *NHMW* = Naturhistorisches Museum Wien, Vienna, Austria. All measurements are in millimetres. Authors' emphases in [ ]. Approximate GPS coordinates for localities are given in parentheses. In accordance with Article 8 of the International Code of Zoological Nomenclature, this work was registered in *urn:lsid:zoobank.org:pub:DB030DB5-00AB-4179-82DB-FB3F29150FE2*

Results

Family **Garypidae** Simon, 1879

Garypus ellickae Sherwood, Grignet, Harvey, Sharp, Wilkins, M. Ashmole & P. Ashmole **sp. nov.**
urn:lsid:zoobank.org:act:EF8AB54A-EF21-451A-A72A-347926FC25B4

Type material: Holotype ♀, paratype ♂ (ASC ITPB 000A), Pillar Bay coastline, Ascension Island (7°58'54.4"S, 14°20'53.3"W), lava trap on intertidal zone, baited with meat, 16/02/2023, coll. A. Sharp; paratype ♂ (ASC ITNW 000A), volcanic coastline west of English Bay, Ascension Island (7°53'40.7"S, 14°23'32.8"W), lava trap on intertidal zone, baited with meat, 02/08/2023, coll. A. Sharp; paratypes 3♂♂, 1♀ (ASC ITNW 000B), same data. Deposited in ASC.

Diagnosis: *Garypus ellickae* **sp. nov**. is one of only a few species of *Garypus* that have a uniformly brown carapace, *viz. G. beauvoisii* (Audouin, 1826), *G. floridensis* Banks, 1895, *G. giganteus* Chamberlin, 1921, *G. levantinus* Navás, 1925, *G. saxicola* Waterhouse, 1878, *G. sini* Chamberlin, 1921 and *G. titanius* Beier, 1961; all other species have at least some pale patches. *Garypus ellickae* **sp. nov**. differs from most species with a unicolourous carapace by the position of trichobothrium st which is midway between sb and t but much closer to *sb* than to *t* in *G. titanius*, slightly closer to *sb* than to *t* in *G. beauvoisii, G. floridensis* and *G. levantinus*. The other species with *st* midway between *sb* and *t*, *G. giganteus* and *G. sini* are substantially larger than *G. ellickae*, which has a pedipalpal femur length of 0.91–0.92 mm [ca. 1.70 mm in *G. giganteus*, and 1.47–1.53 mm in *G. sini*]. The positions of the trichobothria have not been documented for *G. saxicola*, but it is substantially larger than *G. ellickae*, e.g. pedipalpal femur ca. 2.42 mm long in *G. saxicola*, vs. 0.91–0.92 mm in *G. ellickae*.

Etymology: The specific epithet is an eponym in honour of Jacqui Ellick, a Saint Helenian conservationist who worked for many years on Ascension Island to protect its native flora and fauna.

Description of adults:
Colour: carapace uniformly chestnut-brown, without pale areas (Figs. 1A, C, 2A, C); tergites uniformly chestnut-brown, without pale markings except for anterior portion of tergite I (Figs. 1A, E, 2A, E); pedipalps brown, chelae slightly darker than other segments (Figs. 1A–B, 2A–B); legs yellow-brown (Figs. 1A–B, 2A–B).
Chelicera: (Figs. 1C–D, 2C–D) surface slightly roughened; galea of ♂ with 4 rami, of ♀ long with 5 distal rami; fixed finger with 6 (♂), 8 (♀) small teeth, each approximately same size; movable finger with 1 dorsal tooth; serrula exterior with 25 (♂), 28 (♀) blades; rallum with 3 blades, all with anterior spinules, blades progressively shorter.
Pedipalps: long and slender (Figs. 1A–B, 2A–B, 3A–C), very lightly granulate; fixed chelal finger coarsely granulate, movable chelal finger smooth in distal half, but granulate in basal half; trochanter 1.59 (♂) ×, 1.35 (♀) ×, femur cylindrical, without trichobothria, 5.59 (♂) ×, 4.49(♀) ×, patella cylindrical, pedicel not strongly pronounced but basal portion slimmer than distal portion, with several small lyrifissures situated basally on dorsal surface, 3.14 (♂) ×, 3.35 (♀) ×, chelal hand ovoid, chela (with pedicel) 4.49 (♂) ×, 3.96 (♀) ×, chela (without pedicel) 4.16 (♂) ×, 3.72 (♀) ×, hand (without

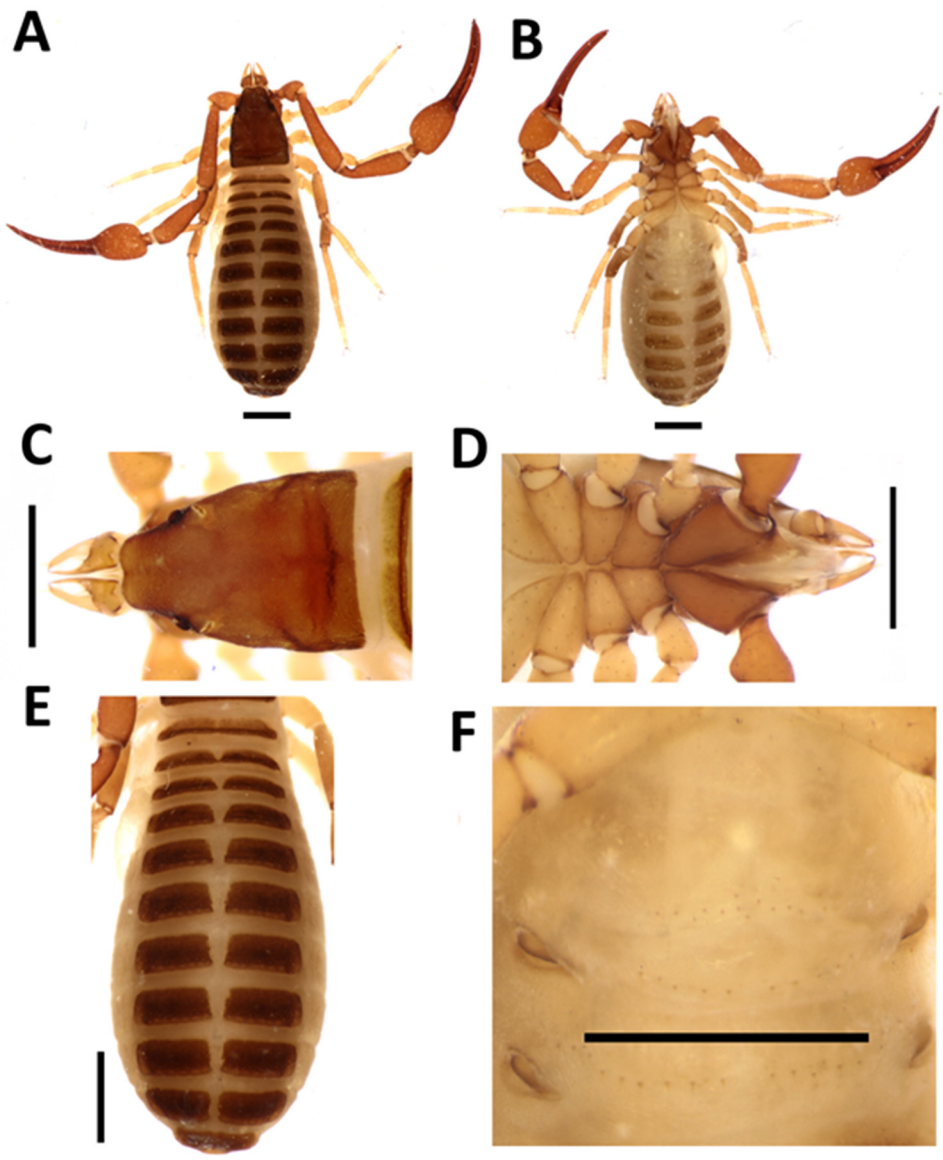

Fig. 1: ***Garypus ellickae*** **Sherwood, Grignet, Harvey, Sharp, Wilkins, M. Ashmole & P. Ashmole sp. nov. holotype female (ASC ITPB 000A), A – habitus, dorsal view, B – habitus, ventral view, C – close-up of carapace, dorsal view, D – close-up of coxae, chelicerae and maxilla, ventral view, E – close-up of sternites, dorsal view, F – close-up of external genitalia, ventral view. Scale bars = 1mm. Photo credits: D. Sherwood.**

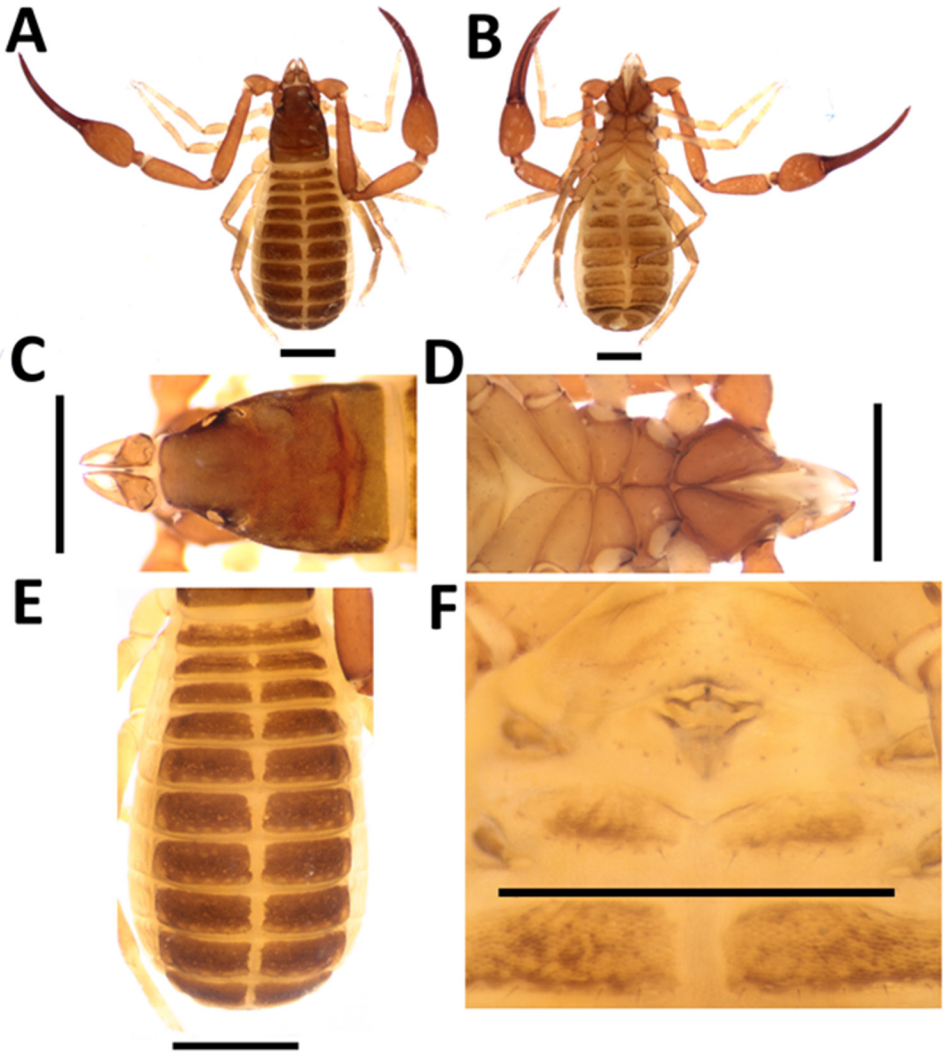

Fig. 2: ***Garypus ellickae*** **Sherwood, Grignet, Harvey, Sharp, Wilkins, M. Ashmole & P. Ashmole sp. nov. paratype male (ASC ITPB 000A), A – habitus, dorsal view, B – habitus, ventral view, C – close-up of carapace, dorsal view, D – close-up of coxae, chelicerae and maxilla, ventral view, E – close-up of sternites, dorsal view, F – close-up of external genitalia, ventral view. Scale bars = 1mm. Photo credits: D. Sherwood.**

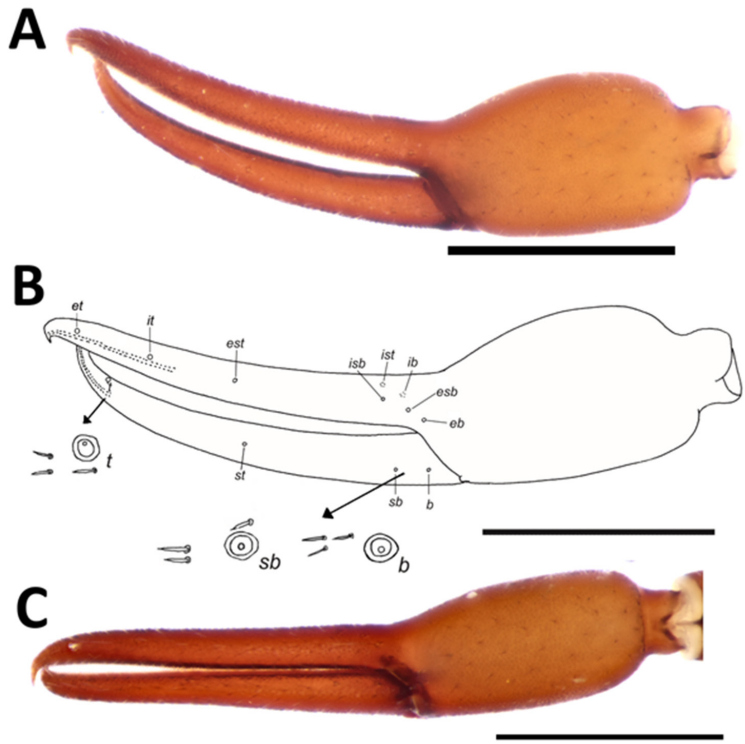

Fig. 3: ***Garypus ellickae*** **Sherwood, Grignet, Harvey, Sharp, Wilkins, M. Ashmole & P. Ashmole sp. nov. chelae in external view, A – holotype female (ASC ITPB 000A), B – illustration of holotype female chela, C – paratype male (ASC ITPB 000A). Scale bars = 1mm. Credits: D. Sherwood (photographs), M. S. Harvey and D. Sherwood (drawings).**

pedicel) 1.58 (♂) ×, 1.48 (♀) × longer than broad, movable finger 1.51 (♂) ×, 1.33 (♀) × longer than hand (without pedicel). Fixed finger with 8 trichobothria, movable finger with 4 trichobothria (Fig. 3B); *eb*, *esb* and *isb* in straight row at base of fixed finger, *ib* and *ist* situated at base of chelal finger; *it* closer to *et* than to *est*; *et* distal to *it*; *sb* much closer to *b* than to *st*; *st* midway between *sb* and *t*. Fixed finger curved, movable finger straight in lateral view; fixed finger granulate, movable finger mostly smooth, but granulate basally. Chelal teeth juxtadentate; fixed finger with ca. 90 (♂), ca. 105 (♀) triangular, retrorse teeth; movable finger with ca. 80 (♂), ca. 90 (♀) triangular, retrorse teeth; venom apparatus present in both chelal fingers, venom duct medium length, terminating midway between *it* and *est* in fixed finger and basal to *t* in movable finger; without microsetae near *et*; with several microsetae near *t*, and near *sb* and *b* (Fig. 3C).

Cephalothorax: carapace (Figs. 1C, 2C) 1.31 (♂) ×, 1.30 (♀) × longer than broad; anterior and posterior furrows present. Maxilla with 4 apical setae. Coxal setal formula: ♂, 7: 7: 9: 16; ♀, 7: 7: 12: ca. 20.

Legs: femur + patella IV 5.08 (♂) ×, 5.18 (♀) × longer than deep (Figs. 4A–H).

Abdomen: tergites, setal formula: ♂, 4: 5: 6: 10: 10: 11: 11: 12: 10: 10: 10: 2; ♀, 8: 8: 10: 10: 12: 14: 14: 16: 14: 10: 12: 2; setae arranged in single rows; sternites, setal formula: ♂, 19: (0) 6 (0): (0) 10 (0): 11: 10: 11: 10: 11: 10: 6: 2; ♀, 15: (0) 10 (0): (0) 20 (0): 14: 13: 16: 18: 16: 12: 7: 2.

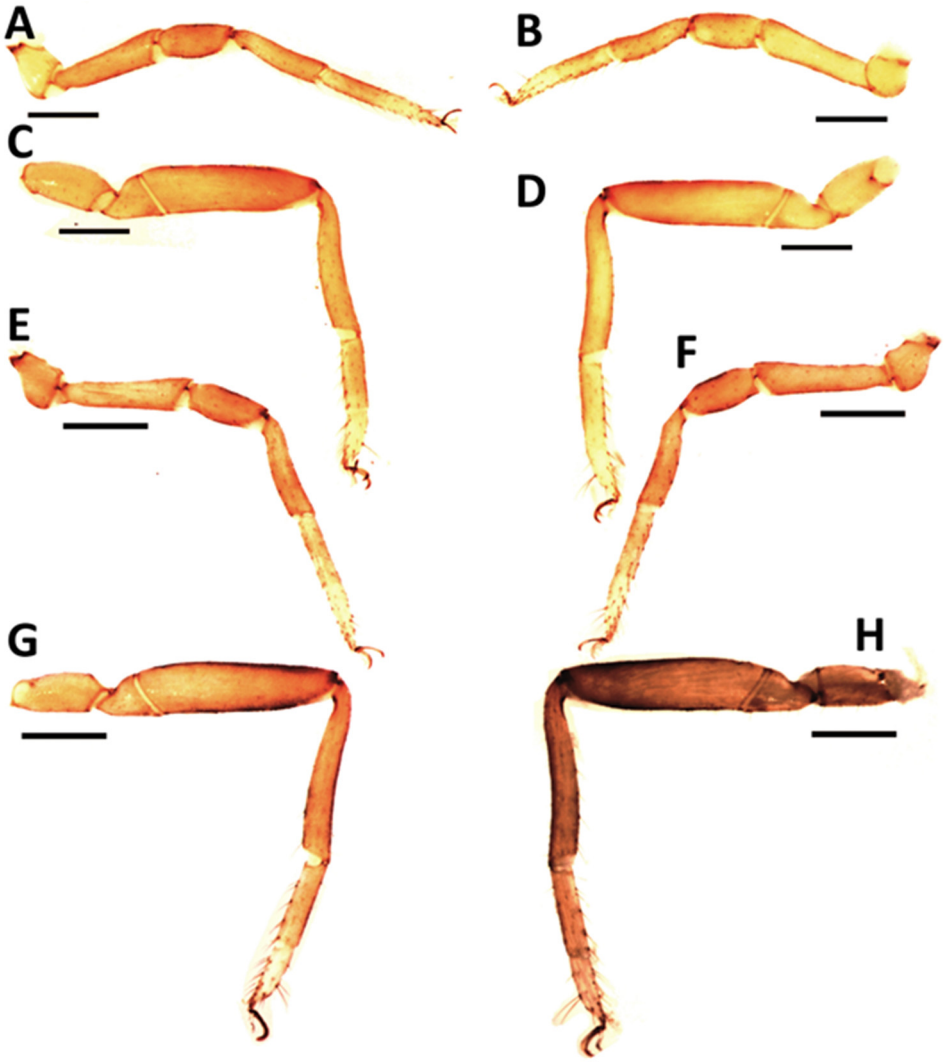

Fig. 4: ***Garypus ellickae*** **Sherwood, Grignet, Harvey, Sharp, Wilkins, M. Ashmole & P. Ashmole sp. nov. legs of holotype female (A–D) and paratype male (E–H) (ASC ITPB 000A), A – leg I, prolateral view, B – leg I, retrolateral view, C – leg IV, prolateral view, D – leg IV, retrolateral view, E – leg I, prolateral view, F – leg I, retrolateral view, G – leg IV, prolateral view, H – leg IV, retrolateral view. Scale bars = 1mm. Photo credits: D. Sherwood.**

Genitalia: Female with 1 pair of lateral cribriform plates and 1 median cribriform plate divided into several smaller platelets (Fig. 1F). Male (Fig. 2F) not studied.

Dimensions (mm): *Male paratype*. Body length 5.02. Chelicera length 0.48, width 0.23, movable finger length 0.30. Pedipalp: trochanter length 0.59, width 0.37; femur length 1.79, width 0.32; patella 1.32, width 0.42; chela (with pedicel) 3.01, width 0.67; chela (without pedicel) 2.79, hand (without pedicel) length 1.06, movable finger length

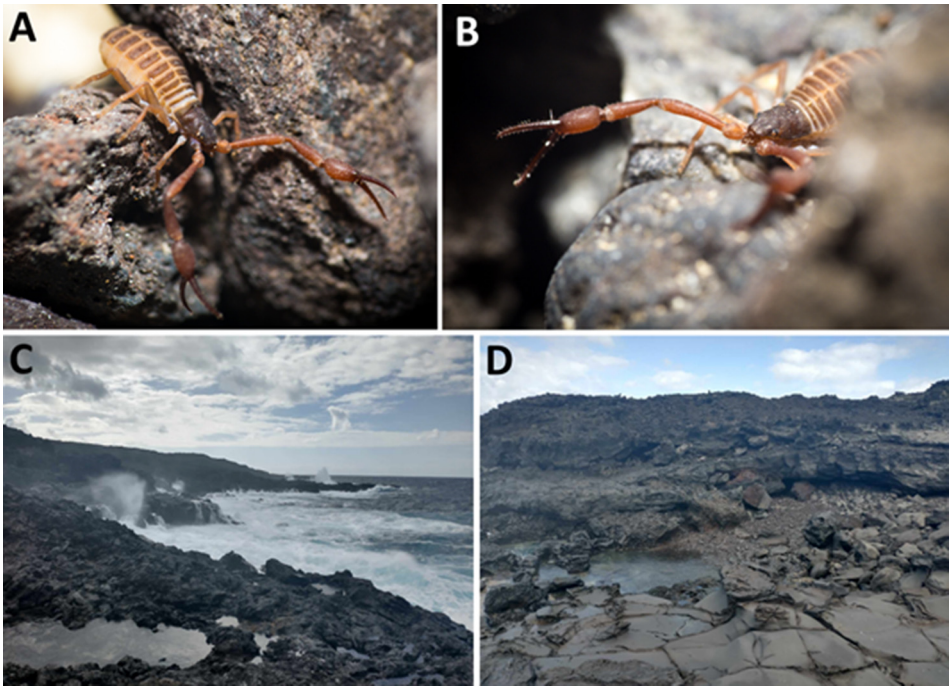

Fig. 5: *Garypus ellickae* Sherwood, Grignet, Harvey, Sharp, Wilkins, M. Ashmole & P. Ashmole sp. nov. adult female in life (A–B) and its habitat at the type locality (C–D). Photo credits: A. Sharp.

1.60. Carapace length 1.41, width 1.07, anterior eye diameter 0.12, posterior eye diameter 0.03. Leg I: femur 0.32/0.23, patella 0.76/0.17, tibia 0.46/0.22, metatarsus 0.62/0.15, tarsus 0.40/0.11. Leg IV: femur 0.26/0.24, patella 1.20/0.30, tibia 1.07/0.16, metatarsus 0.51/0.13, tarsus 0.37/0.12.

Female holotype. Body length 7.14. Chelicera length 0.55, width 0.24, movable finger length 0.33. Pedipalp: trochanter length 0.61, width 0.45; femur length 1.84, width 0.41; patella length 1.44, width 0.43; chela (with pedicel) length 3.21, width 0.81, chela (without pedicel) length 3.01, hand (without pedicel) length 1.20, movable finger length 1.60. Carapace length 1.65, width 1.22, anterior eye 0.12, posterior eye 0.04. Leg I: femur 0.29/0.25, patella 0.79/0.18, tibia 0.48/0.23, metatarsus 0.57/0.16, tarsus 0.70/0.14. Leg IV: femur 0.25/0.29, patella 1.15/0.32, tibia 1.05/0.19, metatarsus 0.52/0.17, tarsus 0.34/0.17.

Distribution: Known only from the shoreline of the mainland, Ascension Island (Figs. 5A–D).

Garypus titanius Beier, 1961

Garypus titanius Beier, 1961: 594–595, fig. 1.; DUFFEY 1964: 241, 250, fig. 6.; KAESTNER 1968: 207 (as *Garypus titaneus* incorrect subsequent spelling); HARVEY 1991: 242; ASHMOLE & ASHMOLE 1997: 566, 579, fig. 8.; JUDSON 1997: 43–44.; ASHMOLE & ASHMOLE 2000: 303.; CODDINGTON & COLWELL 2001: 212.; TURIENZO, IORIO & MAHNERT 2010: 561, 589.

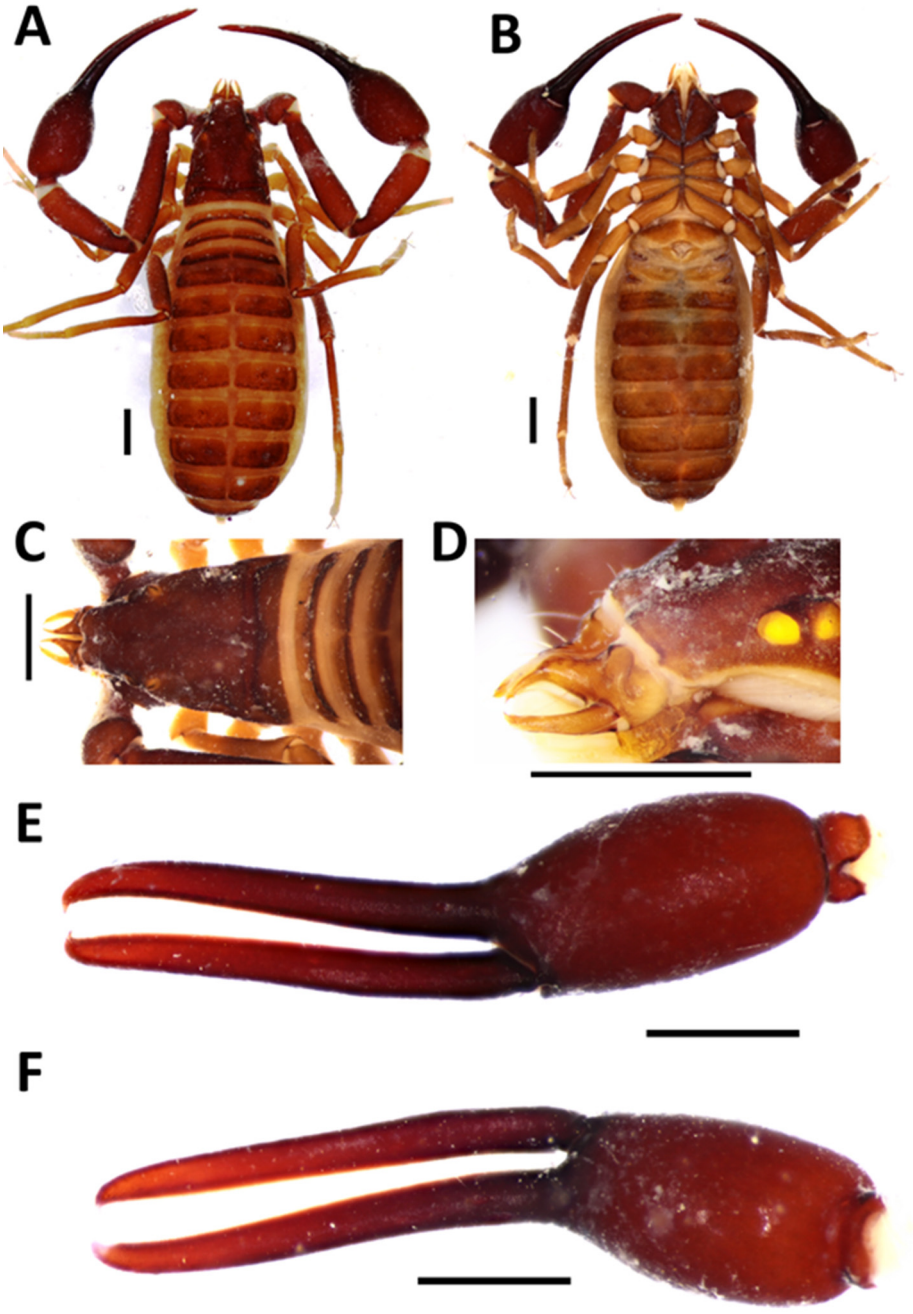

Fig. 6: ***Garypus titanius*** **Beier, 1961 non-type male (ASC 0638), A – habitus, dorsal view, B – habitus, ventral view, C – close-up of carapace, dorsal view, D – close-up of chelicera and eyes, lateral view, E – chela, external view, F – chela, internal view. Scale bars = 1mm. Photo credits: D. Sherwood.**

Type material: 30 syntypes, inclusive of ♂♂, ♀♀, tritonymphs, and deutonymphs (see BEIER 1961). 21 specimens deposited in BMNH (see JUDSON 1997), 7 in NHMW (NHMW 22084, Hörweg pers. comm.), whereabouts of 2 syntypes unknown.

Diagnosis: See BEIER (1961) and above diagnosis for *G. ellickae* sp. nov.

Other material examined: 3♂♂ (ASC 0638), Boatswain Bird Island, Ascension Island (7°56'09"S, 14°18'25"W), 26/05/1995, coll. and colln. P. Ashmole and M. Ashmole.

Distribution: Endemic to Boatswain Bird Island. BEIER (1961) referred to three specimens in a single sample as the [primary] type. The rest he gave as paratypes. However, as he didn't clearly designate a single specimen as the holotype, they are all syntypes.

Remarks: The world's largest pseudoscorpion (Figs. 6A–F), recognised as critically endangered given its endemism to a single islet.

Family **Cheiridiidae** Hansen, 1894

Apocheiridium cavicola Mahnert, 1993
Apocheiridium cavicola Mahnert, 1993: 989–992, figs 43–47.; ASHMOLE & ASHMOLE 1997: 556, 579.; ASHMOLE & ASHMOLE 2000: 302–303.

Type material: Holotype ♂ (MHNG 1171), Ravin Cave, Ascension Island (77°57'57"S, 14°21'43"W), 200m, 25–30/03/1990, coll. N. P. Ashmole, V. Mahnert colln.

Diagnosis: See MAHNERT (1993).

Other material examined: 1♀ (ASC DC PIPE 2), Dalys Crags, Ascension Island (7°55'01"S, 14°22'43"W), collected from loose scoria bank, 03/04/2023, coll. A. Sharp; 1♀ (ASC SGH PFM), South Gannet Hill, Ascension Island (7°58'40"S, 14°23'38"W), pipe trap baited with meat, 2023, coll. A. Sharp.

Distribution: A pale and small species (Figs. 7A–C) found in caves on the mainland of Ascension Island. We present the female for the first time; in non-sexual characteristics it is almost entirely as in the male described by MAHNERT (1993), and thus we do not provide a repetitive description. Differences to the male are exemplified in the figures, female genitalia were not dissected.

Neocheiridium ashmoleorum Sherwood, Grignet, Harvey, Sharp & Wilkins **sp. nov.**
Neocheiridium sp.: Ashmole & Ashmole, 2000: 303.
zoobank.org:act:7F790C12-6750-4DA4-BD7E-D58532D996AC

Type material: Holotype ♀ (MHNG), Boatswain Bird Island, Ascension Island (7°56'09"S, 14°18'25"W), 26-27/05/1995, coll. P. Ashmole and M. Ashmole, V. Mahnert colln., *Neocheiridium* sp. n. det. V. Mahnert, 1996. Deposited in MHNG.

Diagnosis: *Neocheiridium ashmoleorum* **sp. nov**. differs from *N. tenuisetosum* Beier, 1959 and *N. beieri* Vitali-di Castri, 1962 by possessing 4 external trichobothria on the fixed finger of the pedipalp (2 external trichobothria in *N. tenuisetosum* and *N. beieri*), from *N. chilense* Vitali-di Castri, 1962 and *N. corticum* (Balzan, 1887) by the stouter

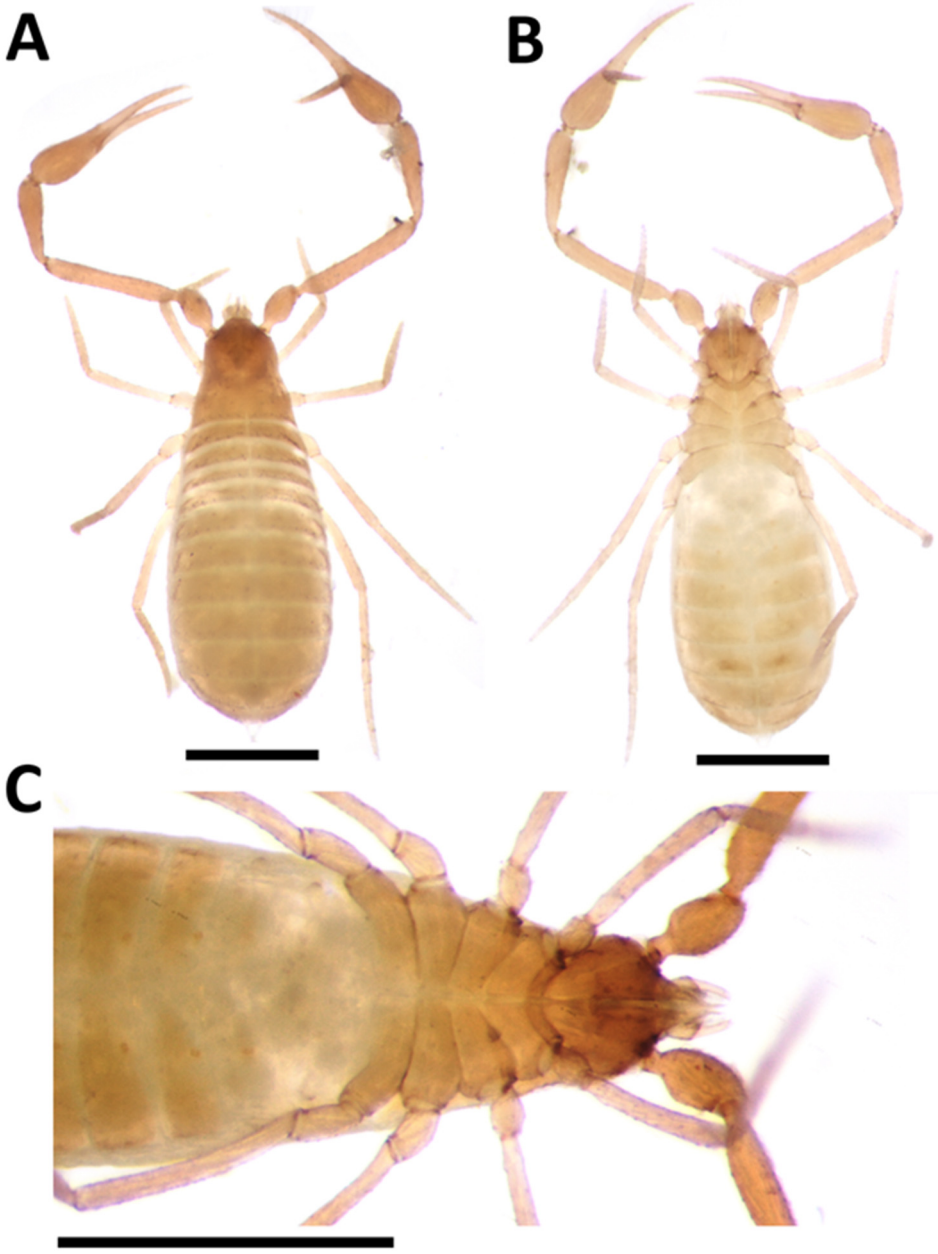

Fig. 7: ***Apocheiridium cavicola*** **Mahnert, 1993 non-type female (ASC SGH PFM), A – habitus, dorsal view, B – same, ventral view, C – close-up, ventral view. Scale bars = 0.5mm. Photo credits: D. Sherwood.**

pedipalp and length of palpal femur not exceeding 0.3 mm (pedipalp more slender and palpal femur exceeding length of 0.3 mm in *N. chilense* and *N. corticum*), from *N. pusillum* Mahnert, 1982 by the palpal femur exceeding 0.18 mm in length (palpal femur 0.18 mm or smaller in *N. pusillum*), and from *N. africanum* Mahnert, 1982, *N. galapagoense* Beier, 1978, *N. gullahorum* Sammet, 2020 and *N. triangulare* Manhert & Aguiar, 1986 by the palp femur less than 0.23mm long (0.23 mm long or greater in *N. africanum, N. galapagoense, N. gullahorum* and *N. triangulare*).

Etymology: The specific epithet is a combined eponym for our esteemed colleagues Philip and Myrtle Ashmole, who have done several lifetimes worth of work on the invertebrates of Ascension Island and Saint Helena, which make so much of our own work possible.

Description of holotype female: Body length: 0.86. Carapace: 0.13 wide, 0.19 long, dark brown, specimen previously desiccated (Figs. 8A–B). Integument tuberculate. Metazonal depression rounded, open towards posterior margin but barely touching. Majority of leg setae cerotegumented, leaf-shaped, lateral setae unmodified (many setae have fallen off, but their bases can be seen). Abdomen with 10 tergites visible from above, setae not counted due to fragility. Pedipalp granulose, measurements: femur 0.21, patella 0.16, chela total length 0.34, fixed finger 0.15, movable finger 0.14 (Fig. 8C). Movable finger: with 18 teeth and 1 trichobothria (Figs. 8D–E, 10A–B). Fixed finger: with 20 teeth and 4 trichobothria (Figs. 8D–E, 10A–B). Coxae of legs tuberculate, suture between femora and patellae of legs inconspicuous (Figs. 9A–D, 10C–F). Leg I: femur 0.20/0.05, patella 0.14/0.03, tarsus 0.16/0/02. Leg IV femur 0.19/0.05, patella 0.14/0.04, tarsus 0.14/0.03. Genitalia: consisting of a single sclerotised plate, barely encroaching on the next sternite, tapering medially in apical third (Fig. 8F); internal structure not studied due to fragility.

Distribution: Known only from the type locality, Boatswain Bird Island, Ascension Island.

Remarks: *Neocheiridium* Beier, 1983 are amongst the world's smallest pseudoscorpions. The new species is based on a fragmented specimen, first recognised as a new species by Volker Manhert but not described. Ideally, we would have preferred to describe this species on the basis of more, and better preserved, material. However, access to Boatswain Bird Island is strictly controlled by the authorities, as the welfare of its extremely delicate ecosystem, and the nesting bird populations, are paramount. The very few limited trips by zoologists to the islet after 1995 failed to find further specimens, although these visits were focused not on invertebrate sampling specifically, and thus this cannot be used at present to infer anything about the current status of this species. Most important is that it is formally described, as it is clearly distinct from all other known species. Now that a name is secured to this independent lineage, future research, including (but not limited to) better taxonomic treatment in the future if specimens can be secured, is now possible.

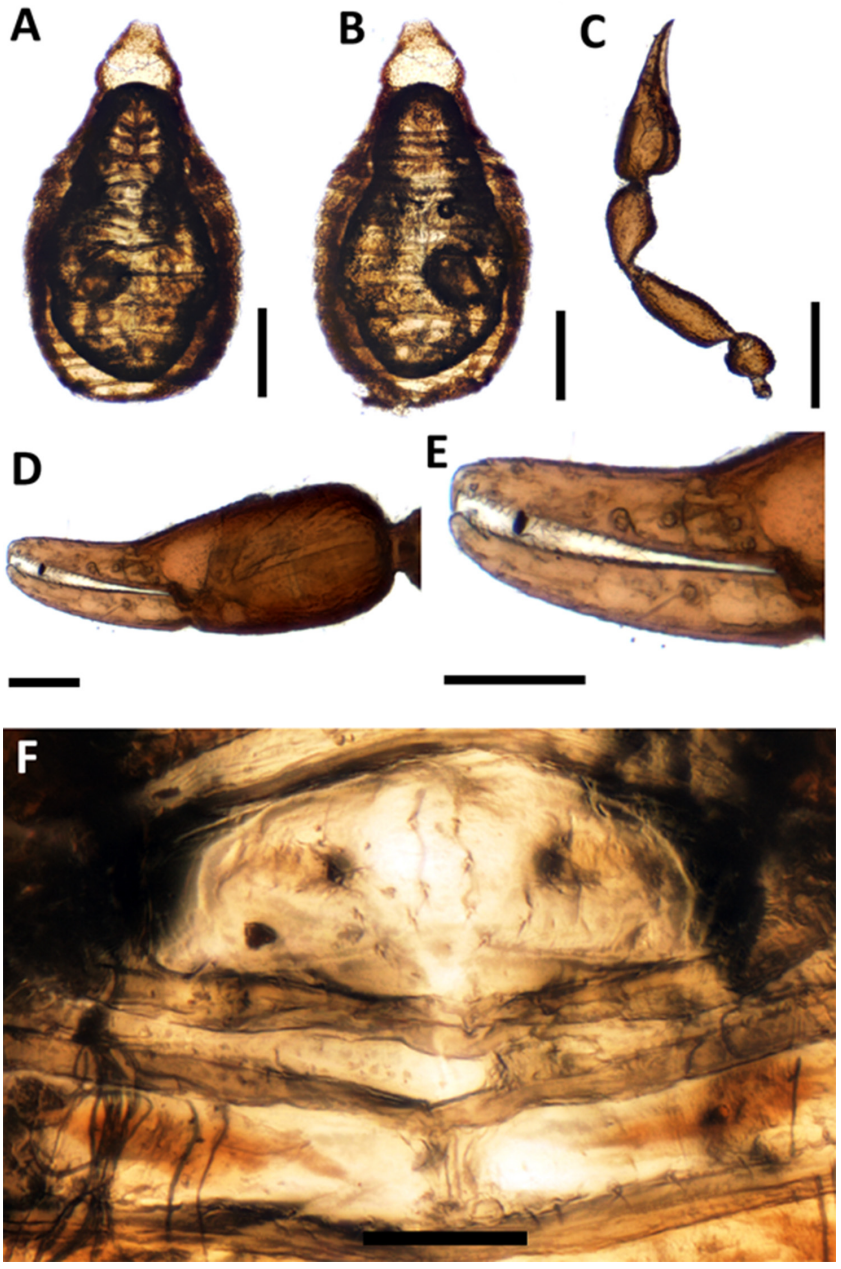

Fig. 8: ***Neocheiridium ashmoleorum*** **Sherwood, Grignet, Harvey, Sharp & Wilkins sp. nov. holotype female (MHNG), A – habitus, dorsal view, B – habitus, ventral view, C – chela, dorsal view, D – close-up of hand, external view, E – close-up of fingers, external view, F – close-up of external genitalia, ventral view. Scale bars = 0.5mm (A–B), 0.2mm (C), 0.05mm (D–F). Photo credits: D. Sherwood.**

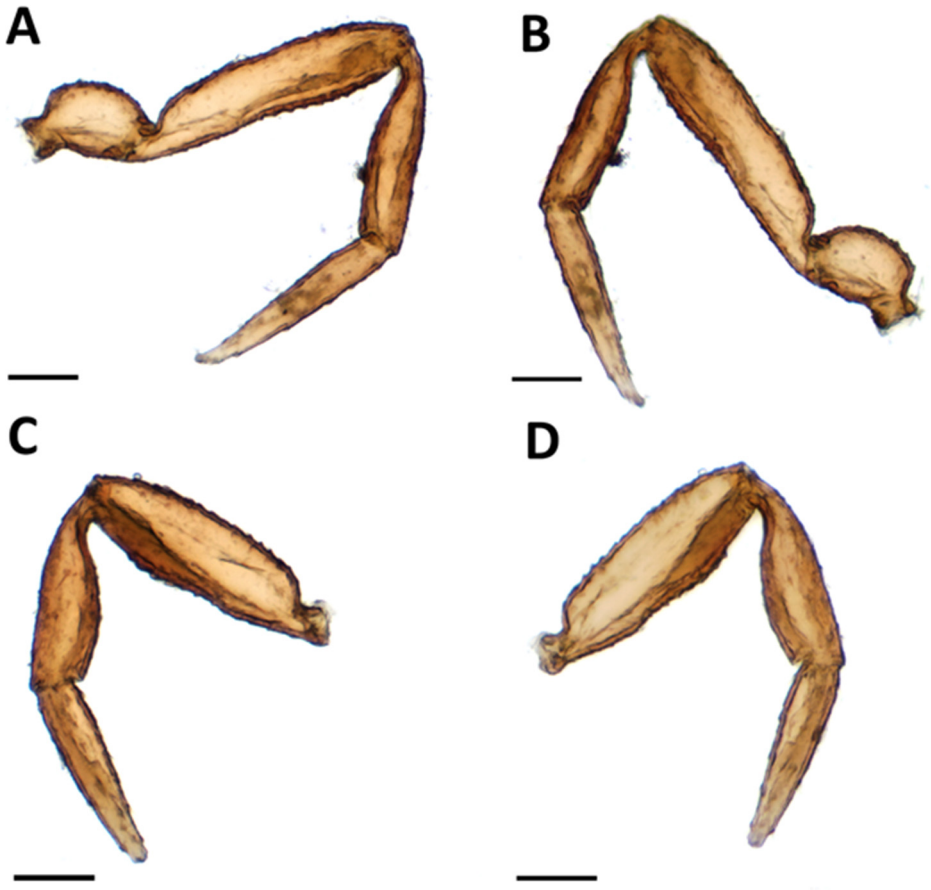

Fig. 9: ***Neocheiridium ashmoleorum*** **Sherwood, Grignet, Harvey, Sharp & Wilkins sp. nov. holotype female (MHNG), leg I (A–B) and leg IV (C–D), A – external view, B – internal view, C – external view, D – internal view. Scale bars = 0.05 mm. Photo credits: D. Sherwood.**

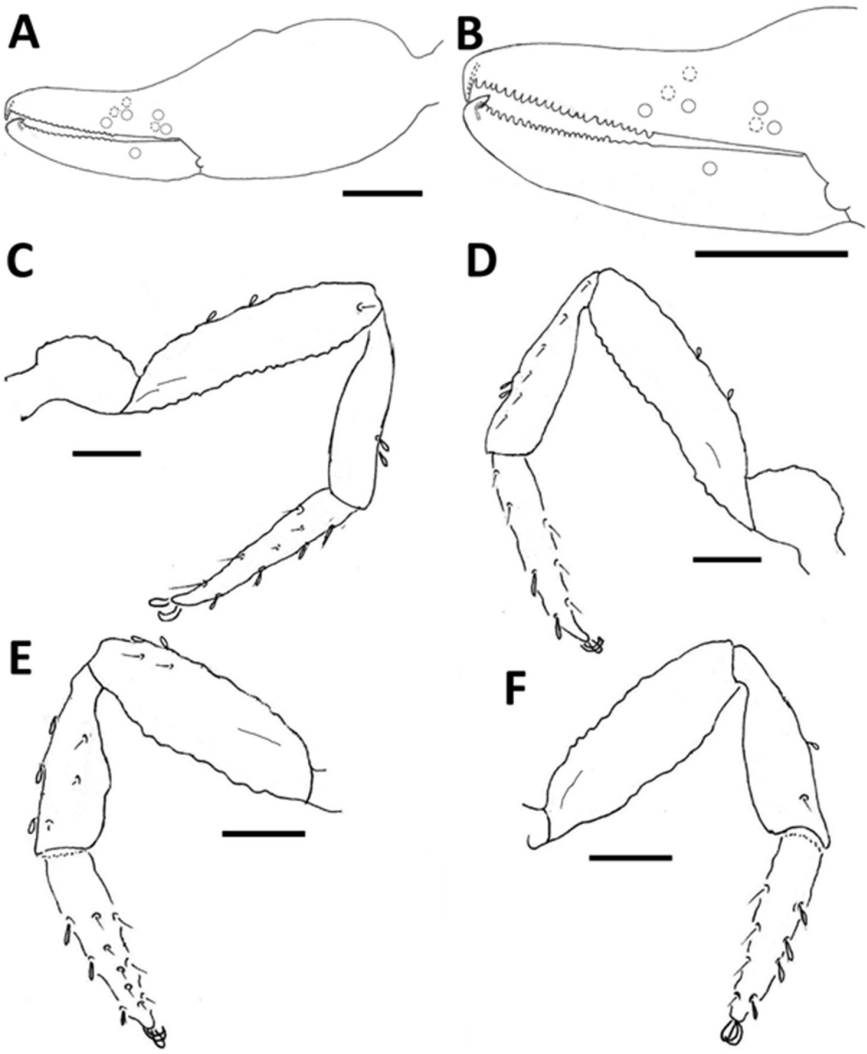

Fig. 10: ***Neocheiridium ashmoleorum*** **Sherwood, Grignet, Harvey, Sharp & Wilkins sp. nov. holotype female (MHNG), illustrations, A – hand, external view, B – close-up of fingers, external view, C – leg I, external view, D – leg I, interal view, E – leg IV external view, F – leg IV, internal view. Scale bars = 0.05mm. Credits: V. Grignet.**

Family **Withiidae** Chamberlin, 1931

Stenowithius duffeyi Beier, 1961
Stenowithius duffeyi Beier, 1961: 597–598, fig. 3.; DUFFEY 1964: 241, 250, fig. 6.; HARVEY 1991: 657.; ASHMOLE & ASHMOLE 1997: 566, 579, fig. 8.; JUDSON 1997: 15.; ASHMOLE & ASHMOLE 2000: 303; HARVEY 2004: 443.; TURIENZO, IORIO & MAHNERT 2010: 561, 590.

Type material: Syntypes 11♂♂, 1♀ (BMNH 1964.8.17.2–12), Boatswain Bird Island, Ascension Island (7°56'09"S, 14°18'25"W), 1958, coll. E. A. Duffey (JUDSON 1997); syntypes 4♀♀ (NHMW 22.394), same data (Hörweg pers. comm.); syntype 1♀ [presumably with same data] with whereabouts unknown.

Diagnosis: See BEIER (1961).

Other material examined: 6 adults (ASC BBISL OPP1), Boatswain Bird Island, Ascension Island, 2016, coll. L. F. White; 1 ♀ (BMNH), Ascension Island [no locality given, but presumably Boatswain Bird Island], 1958, coll. E. A. Duffey, tube 85.

Distribution: Endemic to Boatswain Bird Island.

Remarks: BEIER (1961) mentions a total of 17 syntypes – 10 males and 7 females. However, according to JUDSON (1997) the type series in BMNH consists of 11 males and one female. Thus, five specimens are unaccounted for and JUDSON (1997) states presumably deposited in Naturhistorisches Museum Wien (NHMW). However, the presence of one extra male in the BMNH sample is surprising, unless BEIER (1961) made a typographical error in the original work. Four syntypes are deposited in NHMW (Hörweg pers. comm.), but the whereabouts of the final syntype is unknown, being apparently neither in London nor Vienna. Since the identity of this species is not in question, and both sexes are available at BMNH, we see no need to pursue this matter further in this work, but highlight it for future workers. The new material from ASC would require placing in lactic acid to ascertain sex of individual specimens. Given that both sexes are already known and the species readily identifiable, this was deemed unsuitable as the specimens are already desiccated (Figs. 11A–D) and this would make them more brittle.

Withius ascensionis (Beier, 1961)
Allowithius ascensionis Beier, 1961: 596–597, fig. 2.; DUFFEY, 1964: 240, 250.; ASHMOLE & ASHMOLE 1997: 579.; ASHMOLE & ASHMOLE 2000: 303.
Withius ascensionis: HARVEY 1991: 659.; JUDSON 1997: 9.

Type material: Holotype ♀ (BMNH 1964.8.17.1), northeast coast of Spire Beach, Ascension Island (7°55'57"S, 14°19'07"W), underneath isolated *Chenopodium murlae*, 1958, coll. E. A. Duffey, examined.

Diagnosis: See BEIER (1961).

Other material examined: 1♀ (BMNH), Ascension Island [no locality given on label, but presumably near Spire Beach], 1958, coll. E. A. Duffey, tube 15.

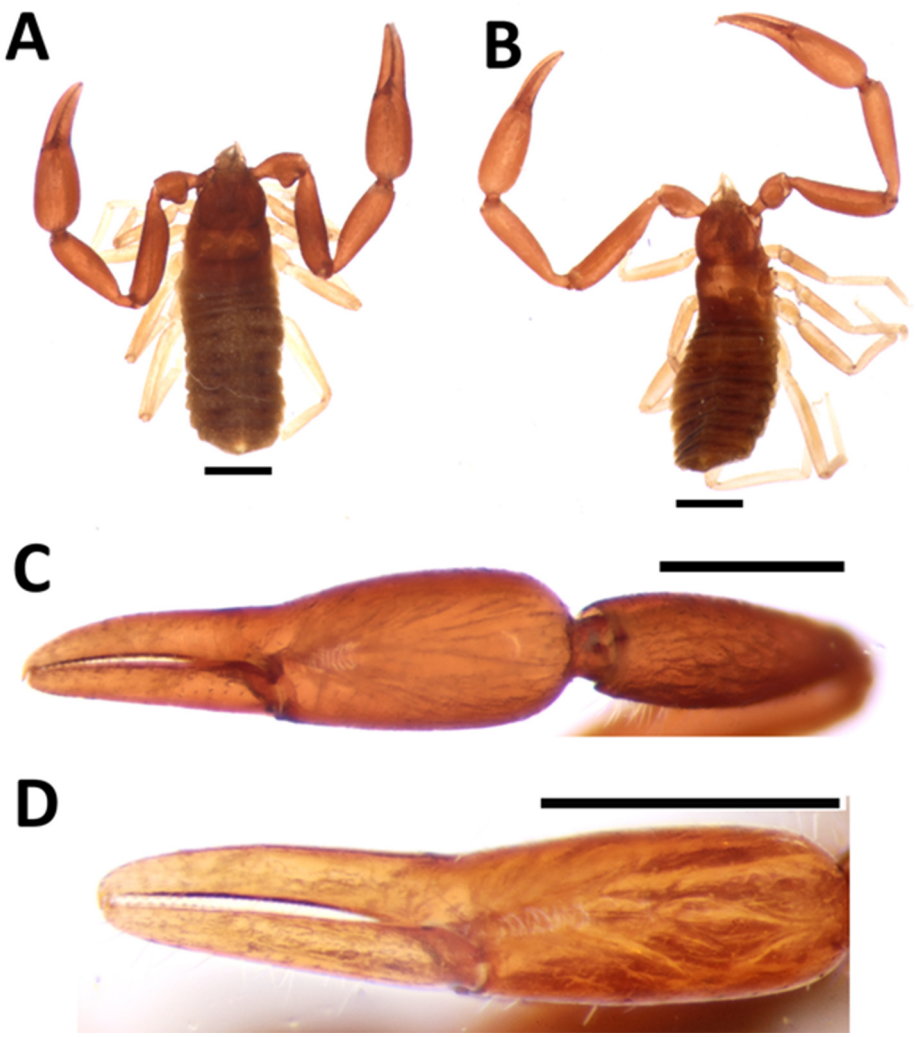

Fig. 11: ***Stenowithius duffeyi*** **Beier, 1961 non-type adult (ASC BBISL OPP1), two adults, A – specimen 1, dorsal view, B – specimen 2, dorsal view, C – specimen 1, chela, external view, D – specimen 2, chela, external view. Scale bars = 0.5mm. Photo credits: D. Sherwood.**

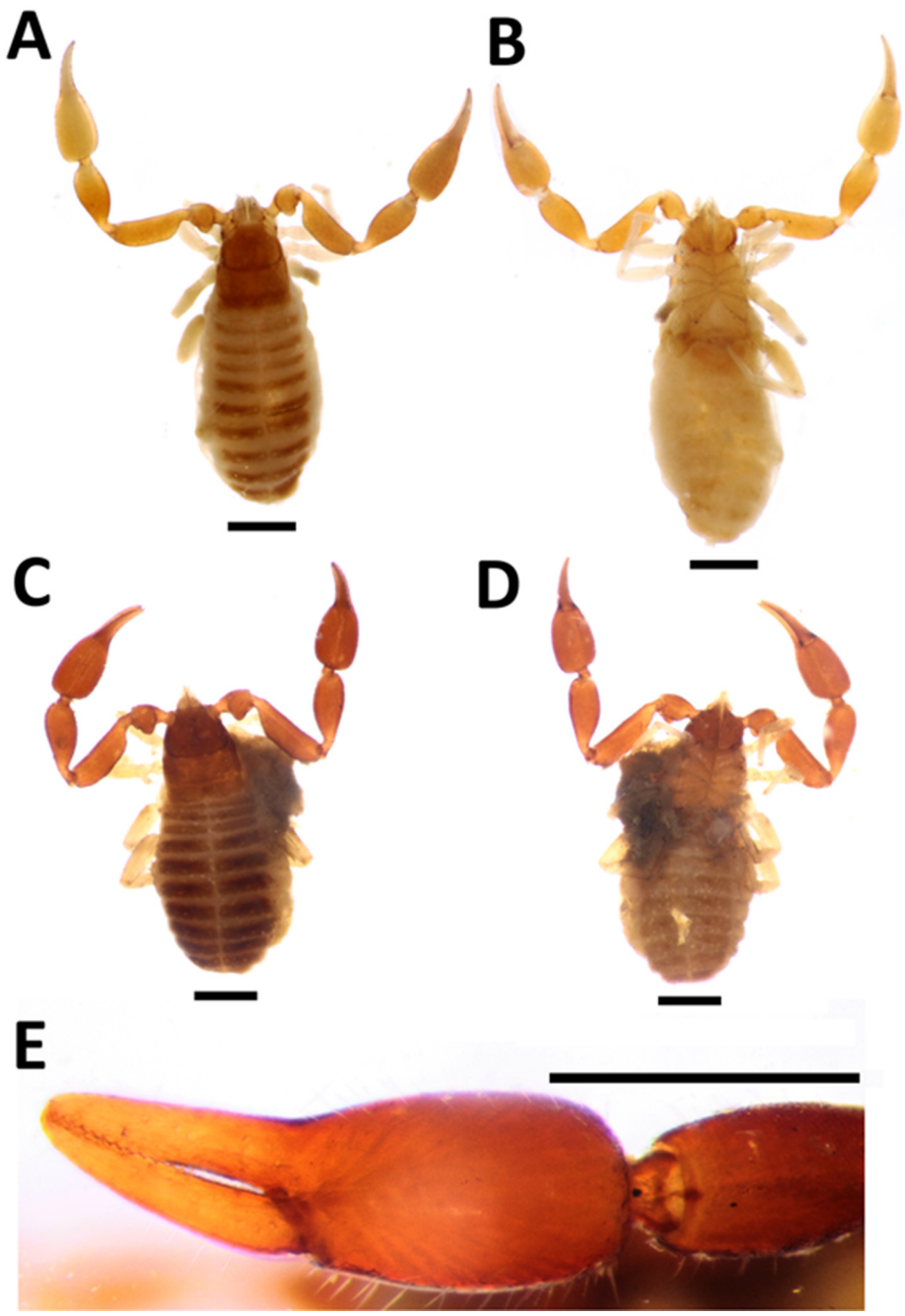

Fig. 12: ***Withius ascensionis*** **(Beier, 1961) holotype female (BMNH 1964.8.17.1) and non-type female (BMNH, no accession number), A – holotype, dorsal view, B – holotype, ventral view, C – non-type, dorsal view, D – non-type, ventral view, E – non-type, chela, external view. Scale bars = 0.5mm. Photo credits: D. Sherwood.**

Distribution: Endemic to Ascension Island, thus far found only on the mainland. Duffey (in Beier 1961) says he collected a single specimen, but we found a second pseudoscorpion whilst DS was working through the tubes of E. A. Duffey's spider collection from Ascension. Thus, incorporating this 'bycatch' female, it is now known from two specimens (Figs. 12A–E).

Discussion

Taxonomic inventory of the pseudoscorpion fauna of Ascension Island had a hiatus of more than 30 years, between the last description of a new taxon (Mahnert 1993) and the survey of the present work. Despite the small size of the island, and the reduced variety of habitats in comparison to its sister island of Saint Helena (Ashmole & Ashmole 2000), it has still been possible to find yet another new species, *Garypus ellickae* **sp. nov.** on the main island. Conversely, despite new sampling, *Withius ascensionis* has yet to be relocated since its original description, which may indicate this species has become very rare or possibly even extinct. Whilst it is also true that *Neocheridium ashmoleorum* **sp. nov.** has also not been relocated since its original description, this is an exceptional case due to the tight restrictions needed to protect the ecosystem of Boatswain Bird Island and resultant lack of further invertebrate-focused fieldwork on the islet. Intertidal sampling in other areas of the island could further improve knowledge of species distributions and ascertain if more undescribed taxa exist. It would be desirable, if possible, for further *N. ashmoleorum* **sp. nov.** material to be collected to add additional data to compliment the original description and describe the unknown male.

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