



<https://doi.org/10.11646/zootaxa.4571.3.13>

<http://zoobank.org/urn:lsid:zoobank.org:pub:74CC2368-236C-48BB-8DAD-6348832E263D>

## Transfer of the Namibian *Argistes africanus* Simon, 1910 (Araneae: Liocranidae) to *Afroseto* Lyle & Haddad, 2010 (Trachelidae), with a new synonym

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### Abstract

Only a single species of the trachelid spider genus *Afroseto* Lyle & Haddad, 2010 has been recorded from Namibia to date, *A. arca* Lyle & Haddad, 2010. Examination of the holotype of *Argistes africanus* Simon, 1910 (Liocranidae), a subadult female specimen, indicates that the species is misplaced and is hereby transferred to *Afroseto* as *A. africana* (Simon, 1910) **comb. nov.** Comparison of the holotype with material of *Afroseto arca* indicates that this latter species is a junior synonym of *A. africana*. New records of *A. africana* from South Africa and Namibia are provided, together with an updated distribution map.

**Key words:** new combination, spider, southern Africa

### Introduction

The genus *Argistes* Simon, 1897 (Araneae: Liocranidae) is a poorly known group of spiders currently comprising three species: *A. velox* Simon, 1897 (type species) and *A. seriatus* Karsch, 1892 from Sri Lanka, and *A. africanus* Simon, 1910 from Namibia. Only *A. velox* is known from both sexes, which were recently (re)described by Marusik (2017), with the other two species supposedly known only from females (World Spider Catalog 2018).

The placement of *A. africanus* is unclear, as the species has never been redescribed or illustrated (Marusik 2017), and also because of the peculiar distribution of the genus' three current representatives. Recently, I obtained the type specimen of this species in the hope of assessing its generic placement. Initial studies of the specimen showed that it bore a close resemblance to *Afroseto arca* Lyle & Haddad, 2010 (Trachelidae), the only species of this genus known from Namibia to date (Lyle & Haddad 2010; Lyle 2015; World Spider Catalog 2018).

In this study, the holotype of *Argistes africanus* is illustrated and compared to material of *Afroseto arca*, with the former species transferred to *Afroseto* and considered a senior synonym of *A. arca*. New records are presented to update our knowledge of the distribution of the species.

### Material and methods

Specimens used in this study were loaned from the Zoological Museum, Berlin (ZMB), National Museum, Bloemfontein (NMBA), National Collection of Arachnida, Plant Health Protection, Pretoria (NCA), and the Ditsong National Museum for Natural History, Pretoria (TMSA).

Digital photographs of the dorsal habitus and carapace, and structure of the abdominal venter, were taken of the holotype of *Argistes africanus* and a female of *Afroseto arca*, using a Nikon D5-L3 camera system attached to a Nikon SMZ800 stereomicroscope. The digital photographs were stacked using the CombineZM imaging software (<http://www.hadleyweb.pwp.blueyonder.co.uk>) to increase the depth of field. The distribution map was created using the online software SimpleMappr (Shorthouse 2010).

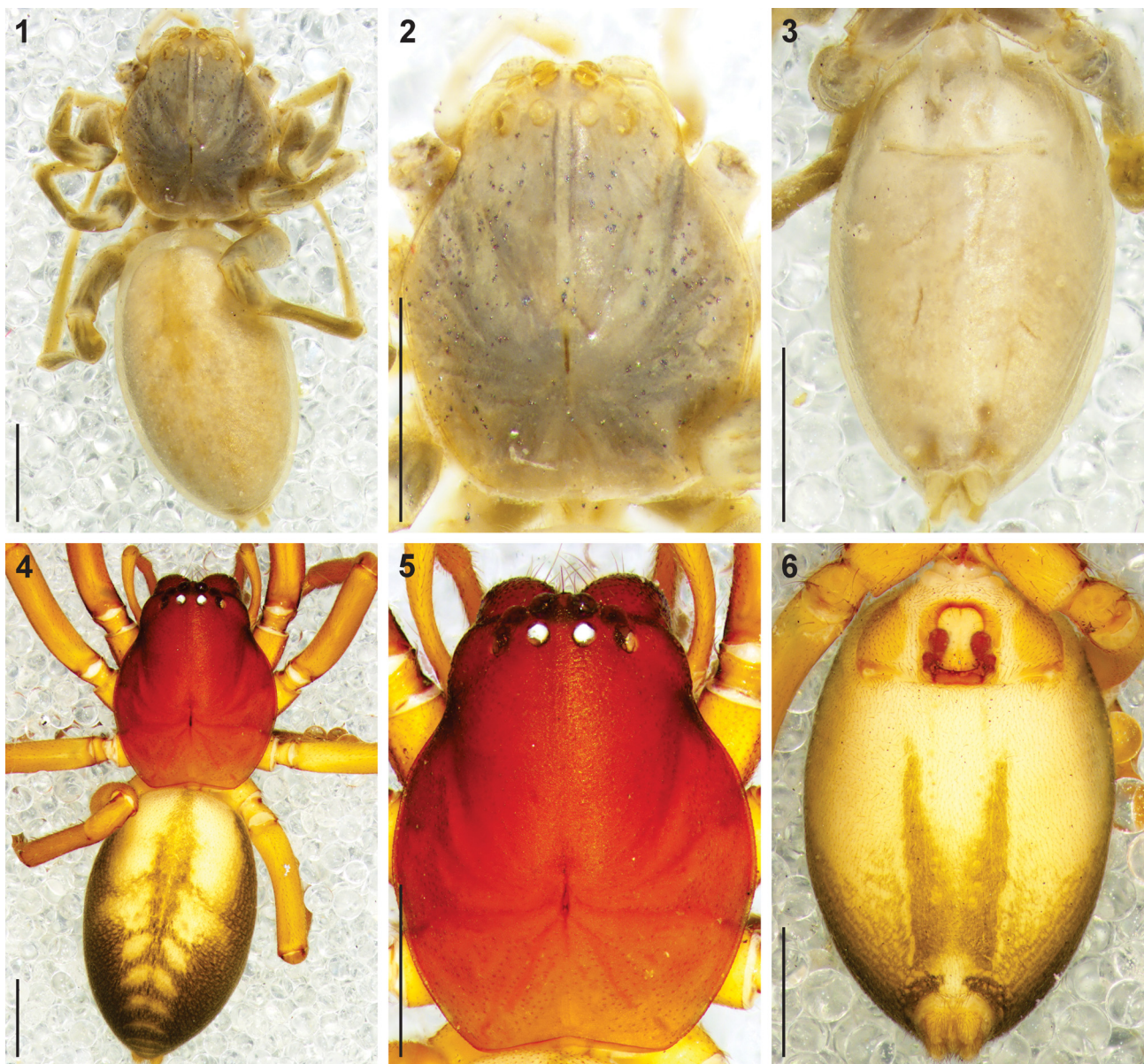
## Trachelidae Simon, 1897

### *Afrocto africana* (Simon, 1910) comb. nov.

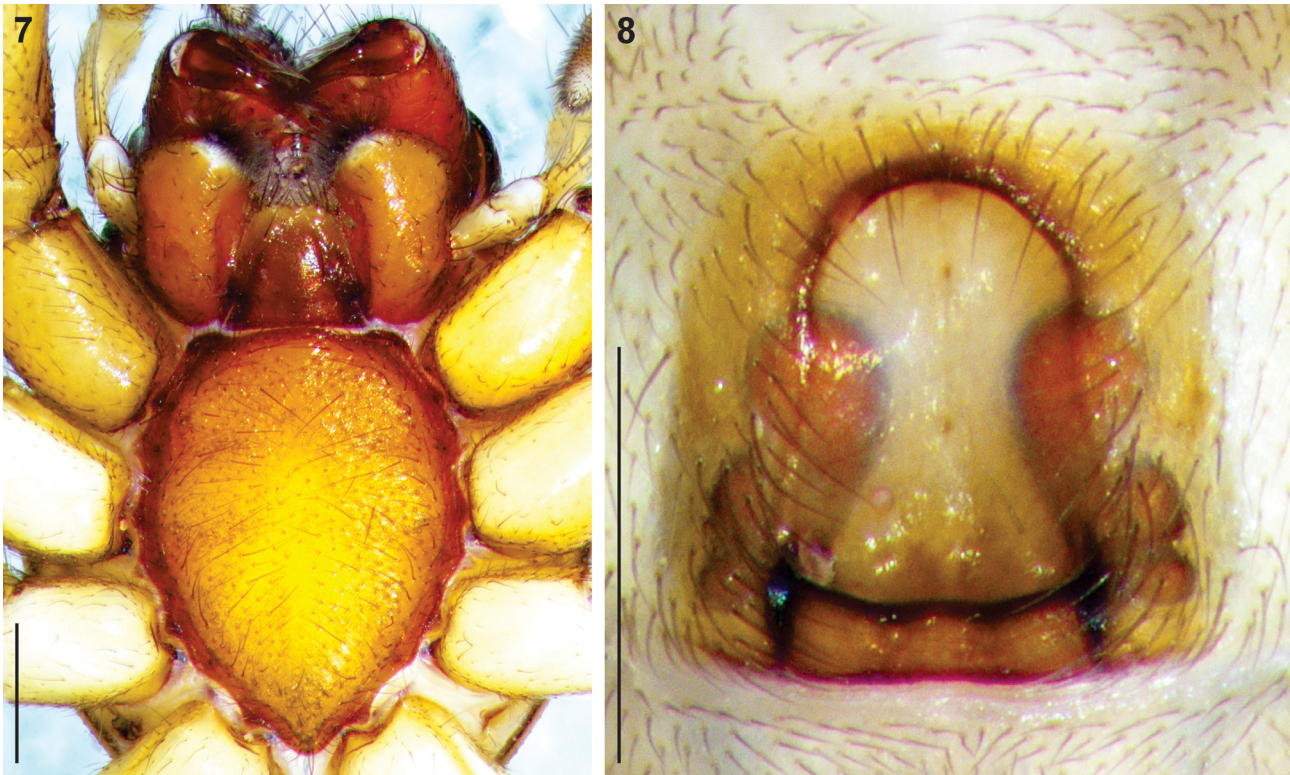
Figs 1–8

*Argistes africanus* Simon, 1910: 201 [subadult ♀ holotype: NAMIBIA: Lüderitzbucht, leg. Schultze, ZMB 27144—examined].  
*Afrocto arca* Lyle & Haddad, 2010: 339, figs 3, 4, 43–49 (♀ ♂), **syn. nov.**

**Remarks.** Although both the original description of *Argistes africanus* (Simon 1910) and the eighth publication in the series on the Arachnida types in ZMB (Moritz & Fischer 1988) indicated that the type specimen is a female, detailed examination showed that it is, in fact, a subadult female without a developed epigyne (Figs 1–3). The type shares a number of characters with the trachelid *Afrocto arca* (Figs 4–6), which is the only representative of the genus that has been recorded from Namibia to date (Lyle & Haddad 2010; Lyle 2015; World Spider Catalog 2018). It, together with the type species *A. martini* (Simon, 1897) and *A. plana* Lyle & Haddad, 2010, are the only three of the 16 described *Afrocto* that have been recorded outside of South Africa and the enclave of Lesotho.



**FIGURES 1–6.** Morphology of *Afrocto africana* (Simon, 1910) **comb. nov.**: 1–3. Holotype subadult female of *Argistes africanus* Simon, 1910; 4–6. Female of *Afrocto arca* Lyle & Haddad, 2010 **syn. nov.**: 1, 4. Habitus, dorsal view; 2, 5. Carapace, dorsal view; 3, 6. Abdomen, ventral view. Scale bars: 1 mm.



**FIGURES 7–8.** Morphology of *Afrocto africana* (Simon, 1910) **comb. nov.** female: 7. Sternum and mouthparts; 8. Epigyne, ventral view. Scale bars: 0.5 mm.

Despite its poor condition, the type of *Argistes africanus* shows traces of a branched chevron marking dorsally on the abdomen, a feature unique to *Afrocto arca* and *A. corcula* Lyle & Haddad, 2010 amongst members of that genus (see Lyle & Haddad 2010: figs 1–22). The general carapace shape, proportions and eye arrangement of the two species are also similar (compare Figs 2 and 5), as are the proportions of the ovoid abdomen and general structure of the spinnerets (compare Figs 3 and 6). The characteristic ventral markings of *A. arca* (Fig. 6) are not evident in the faded holotype of *Argistes africanus* (Fig. 3), nor did Simon (1910) mention them in the original description, only describing the dorsal and lateral markings and indicating the venter as “clay-coloured”: “Abdomen longe oblongum, superne cinereo testaceum, maculis nigris triseriatis, medianis subtriquetris, lateralibus longis et obliquis, ornatum, subtus albo-testaceum.”

The only known record of *Afrocto* from Namibia to date (Lyle & Haddad 2010) is a single male specimen from Vogelfederberg [23°03'S, 14°59'E], which is approximately 400 km north of Lüderitzbucht [modern Lüderitz, 26°38'S, 15°09'E], the type locality of *Argistes africanus* (Fig. 9). The two localities are separated by the Namib Desert, one of the most hostile places on earth, but to the east of this desert are relatively arid but more hospitable Nama Karoo and Savanna habitats. Considering the widespread distribution of *Afrocto arca* in South Africa, including the latter two vegetation types (Lyle & Haddad 2010), it is likely that the two species are conspecific. *Argistes africanus* is hereby transferred to *Afrocto* as *A. africana* (Simon, 1910) **comb. nov.**, and proposed as a senior synonym of *A. arca* **syn. nov.**

**Description.** See Lyle & Haddad (2010) for description of both sexes.

**Diagnosis.** *Afrocto africana* **comb. nov.** is a typical member of the genus, which is characterized from other Afrotropical Trachelidae by their relatively large size, the presence of several strong prolateral spines on the anterior femora, a dorsal scutum in males (usually absent in females), and the presence of many long ventral cusps on the anterior legs of males (and sometimes females too, but not including *A. africana* **comb. nov.**; see Lyle & Haddad 2010). The genus has a shield-shaped sternum and slightly bulging chelicerae (Fig. 7), as do most Afrotropical trachelids. *Afrocto africana* **comb. nov.** can be easily recognized from congeners by the distinct shape of the epigyne, with a broad, anteriorly arched, strongly sclerotised atrium that has a generalized keyhole shape (Fig. 8), and the males with a short, distally coiled embolus (see Lyle & Haddad 2010: figs 46–49).

**New records.** SOUTH AFRICA: *Eastern Cape*: Nearly 7 km S of Hogsback on R345, isolated tree, roadside,

32°38.831'S, 26°55.375'E, 715 m a.s.l., 1.×.2011, leg. J. Neethling & C. Luwes (canopy fogging), 1♂ 1♀ (NCA 2012/1641). *Free State*: Brandfort district, Amanzi Private Game Reserve, 28°35.428'S, 26°26.067'E, 1425 m a.s.l., 17.XII.2016, leg. C. Haddad (hand collecting around buildings), 2♂ (NCA 2016/3036); Brandfort district, Krugersdrift Dam, 28°42'S, 25°55'E, 1.I.1987, leg. Museum staff (in canal), 1♀ (NMBA 9057); Fauresmith district, Farm Boschrand, 29°56'S, 24°48'E, 22.III.2005, leg. L. Lotz (sweeping, beating), 1♀ (NMBA 10007); Luckhoff district, Farm Bankfontein, 30°04.421'S, 24°53.017'E, 22.I.2015, leg. C. Haddad (hand collecting, Nama Karoo veld), 2♀ (NCA 2015/1669); Same locality, 2.IV.2015, leg. University of the Free State students (sifting leaf litter, riparian woodland), 1♀ (NCA 2015/2442); Kalkfontein Dam Nature Reserve, 29°31.285'S, 25°16.662'E, 15.I.2014, leg. Y. Marusik (sifting leaf litter), 2♂ (NCA 2014/1069); Same locality, 29°31.072'S, 25°16.091'E, 28.I.2014, leg. N. Josling (in garden amongst plants), 6♂ 1♀ (NCA 2015/1910); Same locality, 29°31.071'S, 25°16.069'E, 6.II.2014, leg. N. Josling (amongst flowers in garden), 1♂ (NCA 2015/1981); Same locality, 29°31.072'S, 25°16.091'E, 12.XI.2013, leg. N. Josling (in wasp nest), 1♀ (NCA 2015/1993). *Western Cape*: Jacobsbaai, 34°21.430'S, 19°07.557'E, 8.V.2010, leg. C. Haddad (on wall of house at night), 1♀ (TMSA 23787); Matjiesfontein, 33°13.783'S, 20°34.818'E, 900 m a.s.l., 15.X.2015, leg. Z. Mbo (sifting leaf litter), 1♀ (NCA 2016/2363).

**Distribution.** *Afrocto africana* is widespread in the more mesic Grassland, Nama Karoo and Fynbos habitats of southern Africa, with only a few sporadic records from the moister eastern parts of South Africa (Fig. 9). All of the new records reported here fall within the known distribution range of the species.



**FIGURE 9.** Distribution of *Afrocto africana* (Simon, 1910) **comb. nov.**: black star = type locality of *Argistes africanus* Simon, 1910; open circles = published records of *Afrocto arca* Lyle & Haddad, 2010 **syn. nov.** (from Lyle & Haddad 2010); open triangles = new records.

## Acknowledgments

I am grateful to Jason Dunlop and Anja Friederichs (ZMB) for loaning the type specimen of *Argistes africanus* for this study, and Jan-Andries Neethling (NMBA), Petro Marais (NCA) and Audrey Ndaba (TMSA) for loaning specimens of *Afrocto arca*. Yura Marusik and Robert Raven are thanked for their constructive comments that helped improve the manuscript.

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