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Summary

A new record of an adult female of Parabuthus eritreaensis Kovařík, 2003 in Somaliland confirms true distribution of this species, already discussed in Kovařík et al. (2016: 19–21). Three new species are described from Somaliland, P. dorisae sp. n., P. evae sp. n., and P. quincyae sp. n.. The hemispermatophore of P. dorisae sp. n. is illustrated and described. In addition to the analyses of external morphology and hemispermatophore, we have provided descriptions of the karyotypes of P. dorisae sp. n. and P. quincyae sp. n.. Despite the presence of multivalents (CVIII and CXIV), both species exhibit karyotypes with 2n=16 and chromosomes that gradually decrease in length, with the exception of the first chromosome, which is longer than the following chromosomes. A map of distribution of Parabuthus species in the Horn of Africa is included.

Introduction

Kovařík et al. (2016, 2018) revised all known species of Parabuthus Pocock, 1890 in the Horn of Africa. Analysis of a large number of specimens collected recently, allowed to describe three new species from Somaliland, P. dorisae sp. n., P. evae sp. n., and P. quincyae sp. n.. A new record of an adult female of Parabuthus eritreaensis Kovařík, 2003 confirms true distribution of this species, already discussed in Kovařík et al. (2016: 19–21); it is further discussed here; we include photographs of a live specimen and the new locality, the first one for this species Somaliland.

Variation of P. dorisae sp. n. shows for the first time that the color of metasoma V is not a stable character; at least in juveniles it can be colored dark while adult can be rather yellow.

Methods, Material & Abbreviations


Karyotype analyses were conducted on chromosome preparations prepared using the spreading technique, a frequently used method in scorpions (e.g., Kovařík et al., 2009; Sadilek et al., 2015). The chromosomes were stained with a 5% Giemsa solution in Sörensen phosphate buffer for 20 min. Measurements of five spermatocyte nuclei were performed using Image J 1.45r software (http://rsbweb.nih.gov/ij) with the Levan plugin (Sakamoto & Zacaro, 2009). The relative length of the chromosomes was calculated for the diploid set.

Specimen Depositories: FKCP (František Kovařík, private collection, Prague, Czech Republic; to be merged in future with collections of National Museum of Natural History, Prague, Czech Republic); MZUF (Museo Zoologico de “La Specola”, Firenze, Italy).

Morphometrics: D, depth; L, length; W, width.

Systematics

Family Buthidae C. L. Koch, 1837

Parabuthus Pocock, 1890
(Figures 1–129, Table 1)

Heterobuthus Kraepelin, 1891: 205–211 (63–69) (syn. by Kraepelin, 1895: 79 (7)).

Riftobuthus Lourenço et al., 2010: 281, figs. 1 and 2 (syn. by Kovařík et al., 2016: 2).

TYPE SPECIES. Androctonus (Prionurus) liosoma Ehrenberg in Hemprich et Ehrenberg, 1828

DIAGNOSIS. Total length 35–180 mm. Carapace without distinct carinae, in lateral view with entire dorsal surface horizontal or nearly so. Five pairs of lateral eyes and eyepost present. Pectines with fulcra, female pectines typically with dilated or nearly so. Five pairs of lateral eyes and eyespot present.

Remarks on the karyotypes. We analyzed the male karyotypes of two new Parabuthus species from Somaliland. The chromosomes of both species (Figs. 122–127) exhibit typical characteristics observed in all members of the family Buthidae. These chromosomes are holocentric, and males have achiasmatic meiosis. Additionally, species within this family typically have a low number of chromosomes (see Schneider et al., 2023).

The karyotypes of P. dorisae sp. n. (sample S2037) (Figs. 122–124) and P. quinquevae sp. n. (sample S2134) (Figs. 125–127) possess 16 chromosomes. This chromosome count is commonly observed in species from the Horn of Africa, including P. abyssinicus, P. kabateki, P. robustus, and P. somaliandus (Kovařík et al., 2016; 2019).

In both analyzed species, the first chromosome is slightly longer (7.54 % and 10.70% respectively), while the remaining chromosomes gradually decrease in length (6.89–4.45% and 10.70–4.17%). This difference likely is due to reciprocal translocations, resulting in the formation of multivalent associations: eight chromosomes in P. dorisae sp. n. (Fig. 123) and 14 chromosomes in P. quinquevae sp. n. (Fig. 126). These longest chromosomes are consistently associated within these multivalents. Similar chromosome associations are frequently observed in representatives of the family Buthidae (see Šťáhlavský et al., 2020). Despite the fact that the 2n count is consistent among the mentioned Parabuthus species, the diploid number may vary among other taxa (2n=18 in P. kajibu, P. mossambicenisis, P. planicauda, P. raudus from Zimbabwe or 2n=20 in P. capensis, P. pallidus, P. raudus from Namibia and P. transvaalensis) (see Schneider et al., 2023). Therefore, cytotagentic characteristics hold promise for use in the taxonomy of this group.

Parabuthus eritreaensis Kovařík, 2003
(Figures 1–26, 128–129, Table 1)


TYPE LOCALITY AND TYPE REPOSITORY. Eritrea, Asmara env. (incorrect locality, see comment in Kovařík et al., 2016: 19–21 and below); FKCP.

TYPE MATERIAL EXAMINED. “Eritrea, Asmara env.”, 1♀ (holotype) 1♂ (allotypic paratype), 1983, leg. Dorsak; FKCP.

ADDITIONAL MATERIAL EXAMINED. SOMALILAND (Puntland), Gardo, Migiurtina, V. 1930, 1♀, leg. M. Milano & Luppi, FKCP No. 1133; Run, 16.VIII.1969, 1♀, S.B.S., MZUF No. 1127.

NEW MATERIAL EXAMINED. SOMALILAND, near Garadak, 09.489036°N 46.867009°E, 758 m a. s. l. (Locality No. 21SF, Fig. 2), 9.X.2021, 1♀ (DNA-1995, Figs. 1, 3–26, 129), leg. F. Kovařík, FKCP.

DIAGNOSIS. Adults from 71.5 mm (male) to 90 mm (female) long. Base color uniformly yellow to yellowish brown, only fourth metasomal segment and telson dark. Pectine teeth number 39 in male and 35–36 in female. Stridulatory area present on dorsal surface of metasoma I–II, reduced to absent in metasoma III, and absent in metasoma IV–V. Metasoma densely hirsute. Movable finger of pedipalp more than twice as long as manus, bearing 13–15 rows of granules which include both external and internal granules. Manus of pedipalp hirsute, smooth and very narrow in both sexes, pedipalp chela length/width ratio 6.13 in male and 7.22–7.23 in female. Tarsomere I width ratio 6.13 in male and 7.22–7.23 in female. Tarsomere I–III in γ-configuration.

Distribution (Fig. 128). Somalia (Puntland) and Somaliland (first report).

Comments. The true distribution of the species was discussed in Kovařík et al. (2016: 19–21): its type locality “Eritrea, Asmara env.” looked suspicious. According to two males in FKCP and MZUF, it rather appeared that the real distribution range of this species lies in Somalia (Puntland). A new confirmed locality in western Somaliland confirms distribution of the species in Somaliland and Somalia (Puntland); however, the validity of the type locality is still doubtful.
Figures 1–2: *Parabuthus eritreaensis*, female. Figure 1. Female in vivo habitus. Figure 2. Locality, Somaliland, vicinity of Garadak.
Comments on locality and life strategy. The Somaliland locality 21SH is rocky semi-desert terrain at 750 m a. s. l. (Fig. 95). First author (FK) visited the locality and collected the specimen in open terrain at night by UV detection together with Parabuthus dorisae sp. n. and Pandinops cf. pugilator Pocock, 1900.

Parabuthus dorisae sp. n.
(Figs. 27–57, 122–124, 128, Table 1)

Type locality and type repository. Somaliland, God Heeli, 9.472021°N 46.857536°E; FKCP.

Type material (FKCP). Somaliland, God Heeli, 9.472021°N 46.857536°E, (Locality No. 21SE, Fig. 53), 9.X.2021, 1♂ (holotype, DNA-2037, Figs. 27–28, 31–52, 54–57, 122–124) 2♀♀ (paratypes 60 and 27 mm long, DNA-1993, 1994, Figs. 29–30), leg. F. Kovařík.

Etymology. Three species described in this paper are named in honour of three important ladies: Doris Benison, Eva Šebková, and Quincy Isis who helped the first author during a complicated period of his life.

Diagnosis. Adult male holotype 71 mm long, adult female unknown. Base color uniformly yellow to yellowish orange, tergites yellow to yellowish brown, metasoma IV and telson
Figures 5–8: *Parabuthus eritreaensis*, female. Figure 5. End of metasoma IV, metasoma V, and telson in lateral view. Figures 6–8. Metasoma and telson in lateral (6), dorsal (7), and ventral (8) views. Scale bar: 10 mm (6-8).

**Figure 9.** Carapace and tergites I–IV. **Figures 10–11.** Sternopectinal area and sternites.

**Figures 12–15.** Right legs I–IV, retrolateral aspect.


DESCRIPTION ♂. The adult male holotype is 71 mm long. The habitus is shown in Figs. 27–28. For position and distribution of trichobothria of pedipalps see Figs. 37–40, 42–43.

Coloration (Figs. 27–28). The base color is uniformly yellow to yellowish orange, tergites yellow to yellowish brown. The pedipalps and legs are yellow. The metasoma I–III is yellow, metasoma IV is black, and metasoma V is yellow with black pattern. Telson is black. Carapace and sternites are yellow.

Carapace and mesosoma (Figs. 27–28, 47–48). The entire carapace is covered with large granules, carinae are absent. The anterior margin of the carapace is medially weakly convex, and bears 14 symmetrically distributed short, stout spiniform macrosetae. The tergites are densely granulated. Tergite VII is pentacarinate, with lateral pairs of carinae strong,
Figures 27–28. *Parabuthus dorisae* sp. n., male holotype, in dorsal (27) and ventral (28) views. Scale bar: 10 mm.
Figures 29–35: *Parabuthus dorisae* sp. n. Figure 29. Juvenile paratype 60 mm long, metasoma IV–V and telson lateral. Figure 30. Juvenile paratype 27 mm long, metasoma and telson lateral. Figures 31–35: Male holotype. Figure 31. Metasoma V, and telson in lateral view. Figure 32. Metasoma I–III in dorsal view. Figures 33–35. Metasoma and telson in lateral (33), ventral (34), and dorsal (35) views. Scale bars: 10 mm (29–30, 33–35).
Figures 36–48: *Parabuthus dorisae* sp. n., male holotype. Figures 36–46. Right pedipalp, chela in dorsal (36), external (37), and ventral (38) views, patella in dorsal (39), external (40), and ventral (41) views, femur and trochanter in internal (42), dorsal (43), and ventral (44) views. Dentate margins of movable (45) and fixed (46) fingers. Trichobothrial pattern indicated in Figures 37–40 and 42–43 by white circles. Figure 47. Carapace and tergites I–V. Figures 48. Sternopectinal area and sternites.
Figures 49–53: *Parabuthus dorisae* sp. n., male holotype. Figures 49–52. Right legs I–IV, retrolateral aspect. Figure 53. Type locality, Somaliland, vicinity of God Heeli.
serratocrenulate. The pectineal tooth count is 43–44. The pectineal marginal tips extend to the third quarter of the fifth sternite. The pectines have three marginal lamellae and 14 middle lamellae. The lamellae and fulcra bear numerous dark setae. All sternites are smooth, except that there is a stridulatory area on the third sternite. Sternite VII bears four smooth carinae.

**Metasoma and telson** (Figs. 31–35). The metasoma I-IV with a total of 10 granulated carinae. The fifth segment has five carinae, and its ventral and lateral surfaces are strongly granulated. The ventral surface of metasomal segment V has several strong paired granules symmetrically located laterally in the middle part. Dorsolateral carinae of the third and fourth segments composed of blunt denticles, of which the posterior-most denticle is not enlarged. The stridulatory area is located on the dorsal surface of the metasoma I-II. On the third segment it is reduced and on fourth and fifth segments the stridulatory area is absent. The entire metasoma and the telson are pilose with long hairs. The ventral surface of the telson is strongly granulated. The metasomal segment V length/ width ratio is 1.68. The telson is rather bulbous, with the aculeus approximately the same length as the vesicle.

**Pedipalps** (Figs. 36–46). The pedipalps are hirsute with shorter setae on the chela and the patella, and longer setae on the femur, and trochanter. The femur bears four carinae. The chela is smooth without carinae and the patella is finely granulated with carinae indicated. The movable and fixed fingers of pedipalp bear 12–13 rows of granules, all with external and internal accessory granules. The fingers of pedipalps of male with inner side of base smooth, tubercle absent. The manus of pedipalp of male broad, pedipalp chela length/ width ratio 3.35.

**Legs** (Figs. 49–52). Legs III and IV bear tibial spurs. Retrolateral and prolateral pedal spurs are present on all legs. All legs without distinct carinae and smooth. The tarsomerses bear two rows of macrosetae on the ventral surface and other macrosetae on the other surfaces. The bristle-combs are present on all legs, although slightly reduced on the fourth leg.

**Hemispermatophore** (Figs. 54–57). Flagelliform, elongate and slender. Trunk ca. 10 times length of capsule. Flagellum arising from posterior lobe of capsule; pars recta thick, white, fusiform, 3.2× length of capsule. Sperm hyaline, coiled, ribbon-like, 2.3× length of capsule; pars arising from posterior lobe of capsule; pars recta narrow, and slender. Trunk ca. 10 times length of capsule. Flagellum arising from posterior lobe of capsule; pars recta narrow, hyaline, coiled, ribbon-like, 2.3× length of capsule; pars reflecta thick, white, fusiform, 3.2× length of capsule. Sperm hemiduct with 3 lobes: a broad posterior lobe with angulate apical margin and strong anterior carina; a small anterior lobe; and a robust, hook-like basal lobe with pointed tip. Left and right hemispermatophores were similar.

**Measurements.** See Table 1.

**Variability.** There are two paratypes, both juvenile females 60 and 27 mm long. Analysis of DNA confirmed that both juveniles belong to the same species as male holotype. These juveniles have 32–39 pectinal teeth and the main difference from the holotype is that their metasoma V is black or almost black (Figs. 29-30).

**Affinities.** According to the characters used in the key published in Kovafik et al. (2019) the new species which is also confirmed by DNA phylogeny (paper in preparation) is most similar to *P. somaliensis*. Male of *P. doraisae* sp. n. has metasoma relatively slightly slender than males.
Figures 54–57: *Parabuthus dorisae* sp. n., holotype, right hemispermatophore. Figure 54. Whole hemispermatophore, convex view. Figure 55. Capsule and flagellum, convex view. Figures 56–57. Capsule, in posterior (56) and anterior (57) views. Scale bars: 2 mm (54), 1 mm (55–57).
of *P. somalilandus*, metasoma I L/W 1.05 (0.98–1.01 in *P. somalilandus*), metasoma V L/W 1.68 (1.58–1.60 in *P. somalilandus*). Metasoma V is entirely yellow in *P. somalilandus* but yellowish brown to brown (black in juveniles) in *P. dorisae* sp. n.

**Comments on locality and life strategy.** See comments under *P. eritreaensis*.

**Distribution.** Somaliland (Fig. 128).

*Parabuthus evae* sp. n.  
(Figs. 58–82, 128, Table 1)


**Type locality and type repository.** Somaliland, E of Las Anod, 8.530814°N 47.420496°E, 623 m a. s. l; FKCP

**Type material.** (FKCP), Somaliland, E of Las Anod, 8.530814°N 47.420496°E, 623 m a. s. l (Locality No. 21SC, Fig. 59), 8.X.2021, 1♂ (holotype, DNA-1991, Figs. 58, 60–82), leg. F. Kovařík.

**Etymology.** See etymology under *Parabuthus dorisae* sp. n.

**Diagnosis ♂.** Adult male 97.5 mm long, female unknown. Base color uniformly yellow, only metasoma IV–V and telson dark. Pedicel number 58–59 in male. Stridulatory area present on dorsal surface of metasoma I–II, reduced to absent in metasoma III, and absent in metasoma IV–V. Metasoma and pedipalps densely hirsute. Dorsal carina of metasoma IV composed posteriorly of blunt denticles, of which the posterior-most denticle is not enlarged. Movable and fixed fingers of pedipalp bear 13 rows of granules, all with external and internal accessory granules. Fingers of pedipalps elongated. Manus of pedipalp smooth and densely hirsute, pedipalp chela length/ width ratio 5.62 in male. Tarsomere I of all legs with bristle-combs.

**Description ♂.** The adult male holotype is 97.5 mm long. The pectines have three marginal lamellae and 17 middle lamellae. The lamellae and fulcrum bear numerous dark setae. All sternites are smooth. Sternite VII bears two carinae indicated by strong granules.

**Metasoma and telson** (Figs. 68–71). The metasoma I–IV with a total of 10 granulated carinae. Surfaces between carinae densely granulated on metasoma II–IV in lateral and ventral surfaces. The fifth segment has five carinae, and its ventral and lateral surfaces are strongly granulated. Dorsolateral carinae of the third and fourth segments composed of blunt denticles, of which the posterior-most denticle is not enlarged. The stridulatory area is located on the dorsal surface of the metasoma I-II. On the third segment it is reduced and on fourth and fifth segments the stridulatory area is absent. The entire metasoma and the telson are pilose with long hairs. The ventral surface of the telson is strongly granulated. The metasomal segment V length/ width ratio is 1.43. The telson is rather bulbous, with the aculeus approximately the same length as the vesicle.

**Pedipalps** (Figs. 72–82). The pedipalps are densely hirsute with long setae. The femur bears four carinae. The chela is smooth without carinae and the patella is smooth with carinae indicated. The movable and fixed fingers of pedipalp bear 13 and 12 rows of granules, all with external and internal accessory granules. The fingers of pedipalps of male with inner side of base smooth, tubercle absent. The manus of pedipalp of male narrow, pedipalp chela length/ width ratio 5.62.

**Legs** (Figs. 64–67). Legs III and IV bear tibial spurs. Retrolateral and prolateral pedal spurs are present on all legs. All legs without distinct carinae and smooth. The tarsomeres bear two rows of macrosetae on the ventral surface and other macrosetae on the other surfaces. The bristle-combs are present on all legs, although slightly reduced on the fourth leg.

**Measurements.** See Table 1.

**Affinities.** According to the characters used in the key of Kovařík et al. (2019), the new species is most similar to *P. cimrmani*. Male of *P. evae* sp. n. has 58–59 pectinal teeth, which is higher than in males of all other *Parabuthus* species found in the Horn of Africa, except male of *P. cimrmani* which is the scorpion species with the highest number of pectinal teeth (61–62). Males of *P. evae* sp. n. and *P. cimrmani* have similar morphology of pedipalp segments (see Figures 72–82 versus 83–93) but *P. cimrmani* has narrower patella of pedipalp (pedipalp patella L/W ratio in holotype of *P. evae* sp. n. is 2.9 and 3.3 in holotype of *P. cimrmani*). These two species differ in morphology of metasoma which is narrower in *P. cimrmani*; metasoma I is wider than long (metasoma I L/W ratio 0.99 in *P. evae* sp. n. and longer than wide in *P. cimrmani* (metasoma I L/W ratio 1.05).

**Comments.** The type locality 21SC is rocky semi-desert terrain at 600–650 m a. s. l. (Fig. 59). First author (FK) visited the locality and collected the specimen in open terrain during day under stones together with *Hottentotta* sp., *Neobuthus* sp., and *Parabuthus kabateki* Kovařík et al., 2019.

**Distribution.** Somaliland (Fig. 128).
Figures 58–59: *Parabuthus evae* sp. n., male holotype. **Figure 58.** Female holotype in vivo habitus. **Figure 59.** Locality, Somaliland, E of Las Anod.
Figures 60–61. *Parabuthus evae* sp. n., male holotype, in dorsal (60) and ventral (61) views. Scale bar: 10 mm.
Figures 62–71: Parabuthus evae sp. n., male holotype. Figure 62. Carapace and tergites I–V. Figure 63. Sternopectinal area and sternites. Figures 64–67. Right legs I–IV, retrolateral aspect. Figure 68. Metasoma V, and telson in lateral view. Figures 69–71. Metasoma and telson in lateral (69), ventral (70), and dorsal (71) views. Scale bars: 10 mm (69–71).
Figures 72–93: Parabuthus evae sp. n., male holotype. Figures 83–93: Parabuthus cimmanani, male holotype. Figures 72–93. Right pedipalp, chela in dorsal (72, 83), external (73, 84), and ventral (74, 85) views, patella in dorsal (75, 86), external (76, 87), and ventral (77, 88) views, femur and trochanter in internal (78, 89), dorsal (79, 90), and ventral (80, 91) views. Dentate margins of movable (81, 92) and fixed (82, 93) fingers. Trichobothrial pattern indicated in Figures 73–76 and 78–79 by white circles.
Figures 94–95: *Parabuthus quincyae* sp. n., male holotype. **Figure 94.** Male holotype in vivo habitus. **Figure 95.** Locality, Somaliland, vicinity of Huluul.
Figures 96–97. *Parabuthus quincya*e sp. n., male holotype, in dorsal (96) and ventral (97) views. Scale bar: 10 mm.
Figures 98–102: *Parabuthus quincyae* sp. n., male holotype. Figure 98. Metasoma V, and telson in lateral view. **Figure 99.** Metasoma I–III in dorsal view. **Figures 100–102.** Metasoma and telson in lateral (100), ventral (101), and dorsal (102) views. Scale bar: 10 mm (100–102).
Figures 103–110: *Parabuthus quincyae* sp. n., male holotype. **Figure 103.** Carapace and tergites I–IV. **Figures 104–105.** Sternopectinal area and sternites. **Figure 106.** Sternite VII and metasoma I–II ventral. **Figures 107–110.** Right legs I–IV, retrolateral aspect.
Parabuthus quincyae sp. n.
(Figs. 94–121, 125–127, Table 1)

Type locality and type repository. Somaliland, Hulul, 09.977614°N 46.6932°E, 811 m a.s.l.; FKCP.

Figure 111–121. Parabuthus quincyae sp. n., male holotype. Right pedipalp, chela in dorsal (111), external (112), and ventral (113) views, patella in dorsal (114), external (115), and ventral (116) views, femur and trochanter in internal (117), dorsal (118), and ventral (119) views. Dentate margins of movable (120) and fixed (121) fingers. Trichobothrial pattern indicated in Figures 111–115 and 117–118 by white circles.

Parabuthus quincyae sp. n.

(Figs. 94–121, 125–127, Table 1)

Type locality and type repository. Somaliland, Hulul, 09.977614°N 46.6932°E, 811 m a.s.l.; FKCP.

Type material. (FKCP). Somaliland, Hulul, 09.977614°N 46.6932°E, 811 m a.s.l. (Locality No. 21SI, Fig. 95 and fig. 55 in Kovařík & Lowe, 2021: 10), 10–11.X.2021, 1♂ (holotype, DNA-2134, Figs. 94, 96–121, 125–127), leg. F. Kovařík.

Etymology. See etymology under Parabuthus dorisae sp. n.


Description ♂. The adult male holotype is 72 mm long. The habitus is shown in Figs. 94, 96–97. For position and distribution of trichobothria of pedipalps see Figs. 111–115 and 117–118. Coloration (Figs. 96–97). The base color is uniformly yellow to yellowish orange, tergites yellow to yellowish brown. The pedipalps and legs are yellow. The metasoma I–III is yellow, metasoma IV is black, and metasoma V is yellow with black pattern. Telson is black. Carapace and tergites are yellowish brown, sternites yellow.

Carapace and mesosoma (Figs. 96–97, 103–106). The entire carapace is covered with large granules, carinae are absent. The anterior margin of the carapace is medially weakly convex, and bears 12 symmetrically distributed short, stout spiniform macrosetae. The tergites are densely granulated. Tergite VII is pentacarinate, with lateral pairs of carinae strong, serratoecrenulate. The pectinal tooth count is 43–44. The
pectine marginal tips extend to the end of the fourth sternite. The pectines have three marginal lamellae and 13–14 middle lamellae. The lamellae and fulcra bear numerous dark setae. All sternites are smooth, except that there is a stridulatory area on the third sternite. Sternite VII bears four smooth reduced carinae.

**Metasoma and telson** (Figs. 98–102). The metasoma I-IV with a total of 10 granulated carinae. The fifth segment has five carinae, and its ventral and lateral surfaces are strongly granulated. The ventral surface of metasomal segment V has several strong paired granules symmetrically located laterally in the middle part. Dorsolateral carinae of the third and fourth segments composed of rather blunt denticles, of which the posterior-most denticle is not enlarged. The stridulatory area is located on the dorsal surface of the metasoma I-III. On the fourth and fifth segments the stridulatory area is absent. The entire metasoma and the telson are pilose with long hairs. The ventral surface of the telson is strongly granulated. The metasomal segment V length/ width ratio is 1.58. The telson is rather bulbous, with the aculeus approximately the same length as the vesicle.

**Pedipalps** (Figs. 111–121). The pedipalps are hirsute with shorter setae on the chela and the patella, and longer setae on the femur, and trochanter. The femur bears four carinae. The chela is smooth without carinae and the patella is finely granulated with carinae indicated. The movable and fixed fingers of pedipalp bear 12–13 rows of granules, all with external and internal accessory granules. The fingers of pedipalps of male with inner side of base smooth, tubercle absent. The manus of pedipalp of male broad, pedipalp chela length/ width ratio 3.14.

**Legs** (Figs. 107–110). Legs III and IV bear tibial spurs. Retrolateral and prolateral pedal spurs are present on all legs. All legs without distinct carinae and smooth. The tarsomeres bear two rows of macrosetae on the ventral surface and other macrosetae on the other surfaces. The bristle-combs are present on all legs, although slightly reduced on the fourth leg.

**Measurements.** See Table 1.

**Affinities.** According to the characters used in the key published in Kovářík et al. (2019) the new species which is also confirmed by DNA phylogeny (paper in preparation) is most similar to *P. somalilandus*. *P. quincyae* sp. n. has stridulatory area present on dorsal surface of metasoma I–III (present on metasoma I–II, reduced or absent in metasoma III in *P. somalilandus*), manus of pedipalp of male broader, pedipalp chela L/W ratio 3.14 in male holotype (3.38–3.91 in males of *P. somalilandus*).
Comments on locality and life strategy. The type locality 21SI is a rocky semi-desert terrain with consolidated substrate at 800–850 m a. s. l. (Fig. 95 and fig. 55 in Kovařík & Lowe, 2021: 10). First author (FK) visited the locality and collected the specimen in open terrain at night by UV detection together with Lanzatus huluul Kovařík & Lowe, 2021 (type locality), Neobuthus sp., and Hemiscorpius sp.

Distribution. Somaliland (Fig. 128).
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