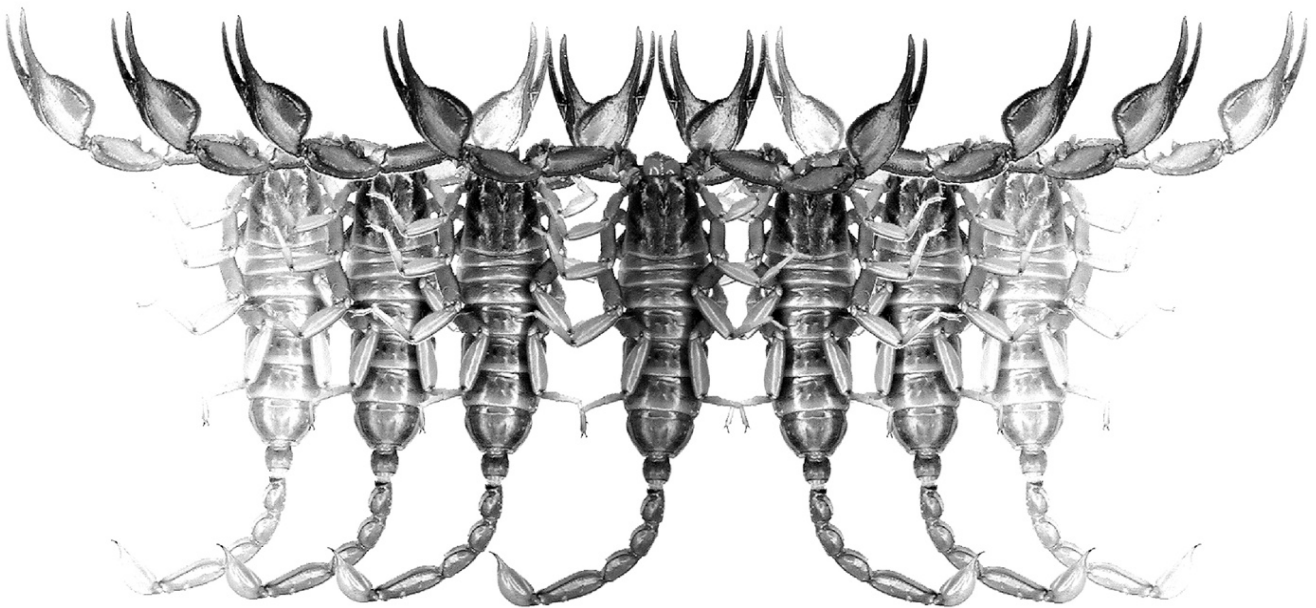


# ***Euscorpius***

**Occasional Publications in Scorpiology**



**Scorpions of the Horn of Africa (Arachnida:  
Scorpiones). Part XLI. *Pandinops sahil* sp. n.  
from Somaliland (Scorpionidae)**

**František Kovařík**

**July 2025 — No. 418**

# *Euscorpius*

## *Occasional Publications in Scorpiology*

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# Scorpions of the Horn of Africa (Arachnida: Scorpiones). Part XLI. *Pandinops sahil* sp. n. from Somaliland (Scorpionidae)

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<http://zoobank.org/urn:lsid:zoobank.org:pub:2F91B420-5BFA-4D54-B805-B70BDCE4EB3C>

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## Summary

*Pandinops sahil* sp. n. from Somaliland is described and compared with other species of the genus, fully complemented with color photos of holotype male of the new species, as well as of its habitat. *Pandinops bambii* Rossi, 2017 is synonymized with *Pandinops turieli* Kovařík, 2016, **syn. n.** A key for the species of *Pandinops* and a map of the distribution of the genus are provided.

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## Introduction

Birula (1913: 419–422, figs. a–b) described the subgenus *Pandinus* (*Pandinops*) with the type species *Pandinus peeli* Pocock, 1900. The subgenus was differentiated from the nominal *Pandinus* Thorell, 1877 according to morphological characters. Kovařík (2016) elevated *Pandinops* to the genus rank, and the genus was further revised (Kovařík, 2016; Kovařík et al., 2017). Analysis of additional new material collected during recent expeditions allowed to described another new species, *Pandinops sahil* sp. n. from Somaliland.

## Methods, Material & Abbreviations

Nomenclature and measurements follow Vachon (1963), Stahnke (1971), Sissom (1990), Kovařík (2009), and Kovařík & Ojanguren Affilastro (2013), except for trichobothriotaxy (Vachon, 1974, 1975), and morphology of sternum (Soleglad & Fet, 2003).

Specimens studied herein are preserved in 80% ethanol in the first authors collection (FKCP, František Kovařík, private collection, Prague, Czech Republic; will in future be merged with the collections of the National Museum of Natural History, Prague, Czech Republic).

## Systematics

Scorpionidae Latreille, 1802

*Pandinops* Birula, 1913

(Figures 1–27, Table 1)

*Pandinus* (*Pandinops*) Birula, 1913: 419–422, fig. b; Vachon, 1974: 921, 953, figs. 116–118; Fet, 2000: 469; Kovařík, 2009: 51–53, 115–118, figs. 294–298, 304–327.

*Pandinops* Kovařík, 2016: 1–20, figs. 1–69, table 1; Kovařík et al., 2017: 1–20, figs. 1–60, table 1.

TYPE SPECIES. *Pandinus peeli* Pocock, 1900 [now a junior synonym of *Pandinops pugilator* (Pocock, 1900)].

DIAGNOSIS. Total length 55–95 mm. External trichobothria on patella number 13–16 (5–6 *eb*, 2–4 *esb*, 2 *em*, 1–2 *est*, 3 *et*); ventral trichobothria on patella number 22–35; internal trichobothria on chela number 6–8; ventral trichobothria on chela number 9–13. Pedipalp chela manus lobiform. Movable fingers of pedipalp, length of segments of pedipalps, and telson without noticeable sexual dimorphism. Pectines with fulcra. Pectinal teeth number 11–21. Sternum subpentagonal, longer than wide. Carapace without distinct carinae. Dentate margin of pedipalp chela movable finger with distinct granules divided into 5–7 rows. Tergites I–VI of mesosoma bear one carina. Stridulation organ located on pedipalp coxae and first pair of legs, but can be reduced. Metasomal segments I–IV with paired parallel ventral median carinae or without carinae. Telson without subaculear tubercle. Legs with one pedal spur, retrolateral spur absent. *Tarsomere I of legs*. Spiniform macrosetae *pd*, *vt*, *rt*, *vst* are present on legs I–IV, but *pd* can be replaced by a seta as intraspecific variability; *pst* is present on legs III–IV; *pt* and *vm* are absent on all legs; *rm* is present on legs I–IV, but is often replaced by seta or spiniform seta. *Tarsomere II of legs*. Spiniform formula is 3/4: 3/4: 3/4-5: 3/4-5. Tarsomere II with 2 spines on inclined anteroventral surface, but a seta on leg III can be transformed to a „spiniform seta“ which indicates a poorly developed third spine as intraspecific variability.





Figures 1–2. *Pandinops sahil* sp. n., male holotype in vivo habitus.



Dimensions (mm)		<i>Pandinops sahil</i> sp. n. ♂ holotype
Carapace	L / W	13.44 / 13.04
Mesosoma	L	29.87
Tergite VII	L / W	5.55 / 9.17
Metasoma + telson	L	36.48
Segment I	L / W / D	4.53 / 4.71 / 3.69
Segment II	L / W / D	4.86 / 4.21 / 3.47
Segment III	L / W / D	5.28 / 3.91 / 3.26
Segment IV	L / W / D	6.19 / 3.57 / 2.96
Segment V	L / W / D	7.52 / 3.26 / 2.54
Telson	L / W / D	8.10 / 3.16 / 2.64
Pedipalp	L	39.37
Femur	L / W	8.74 / 4.36
Patella	L / W	11.02 / 4.43
Chela	L	19.61
Manus	W / D	9.56 / 5.29
Movable finger	L	12.06
<b>Total</b>	<b>L</b>	<b>79.79</b>

**Table 1.** Comparative measurements of male holotype of *Pandinops sahil* sp. n. Abbreviations: length (L), width (W, in carapace it corresponds to posterior width), depth (D).

SUBORDINATE TAXA. *Pandinops bellicosus* (L. Koch, 1875) (Eritrea), *P. colei* (Pocock, 1896) (Somaliland), *P. eritreensis* Kovářík, 2003 (Eritrea), *P. friedrichi* Kovářík, 2016 (Somalia), *P. platycheles* (Werner, 1916) (Ethiopia), *P. pococki* Kovářík, 2000 (Somalia [Puntland]), *P. pugilator* (Pocock, 1900) [= *Pandinus peeli* Pocock, 1900, = *Pandinus hawkeri* Pocock, 1900] (Somaliland, Ethiopia [the first record, see comments below]), *P. sahil* sp. n. (Somaliland), *P. turieli* Kovářík, 2016 = *Pandinops bambii* Rossi, 2017, **syn. n.** (Ethiopia, Kenya).

COMMENTS. Rossi (2017) described *Pandinops bambii* from Ethiopia (type locality) and Somalia in his self-published journal, *Rivista Aracnologica Italiana*. This journal issue became accessible to the public (i. e., published) in March 2017, but was pre-dated 14 July 2016 (see also Kovářík et al., 2019: 19, and Kovářík & Lowe, 2022: 5, 15). I have studied the same specimens several years earlier (see Kovářík & Whitman, 2005: 114). The holotype is an old, incomplete juvenile identified by Rossi as a “subadult male”; however, there is no possibility to determine sex of this juvenile correctly. Characters cited by Rossi are insufficient but I am sure that at least the juvenile holotype from Ethiopia in reality belongs to *Pandinops turieli* Kovářík, 2016 (published 23 August 2016). I conclude that *Pandinops bambii* Rossi, 2017 is a junior synonym of *P. turieli* Kovářík, 2016, **syn. n.**

During the 2021–2024 expeditions three new localities of *Pandinops pugilator* (Pocock, 1900) were confirmed: two in Somaliland (9.909383°N 46.833336°E, locality No. 21SH,

10.X.2021, 2juvs., leg. F. Kovářík; and Beeyo Dhaadheer, 10.4169733°N 45.4316814°E, XI.2023, 1♀ leg. Hassan Elmi) and one in Ethiopia (Jijiga, 9.3693978°N 42.8350769°E, VI.2024, 1♀9juvs, leg. H. Elmi), see map (Figure 26).

***Pandinops sahil* sp. n.**  
(Figs. 1–27, Table 1)

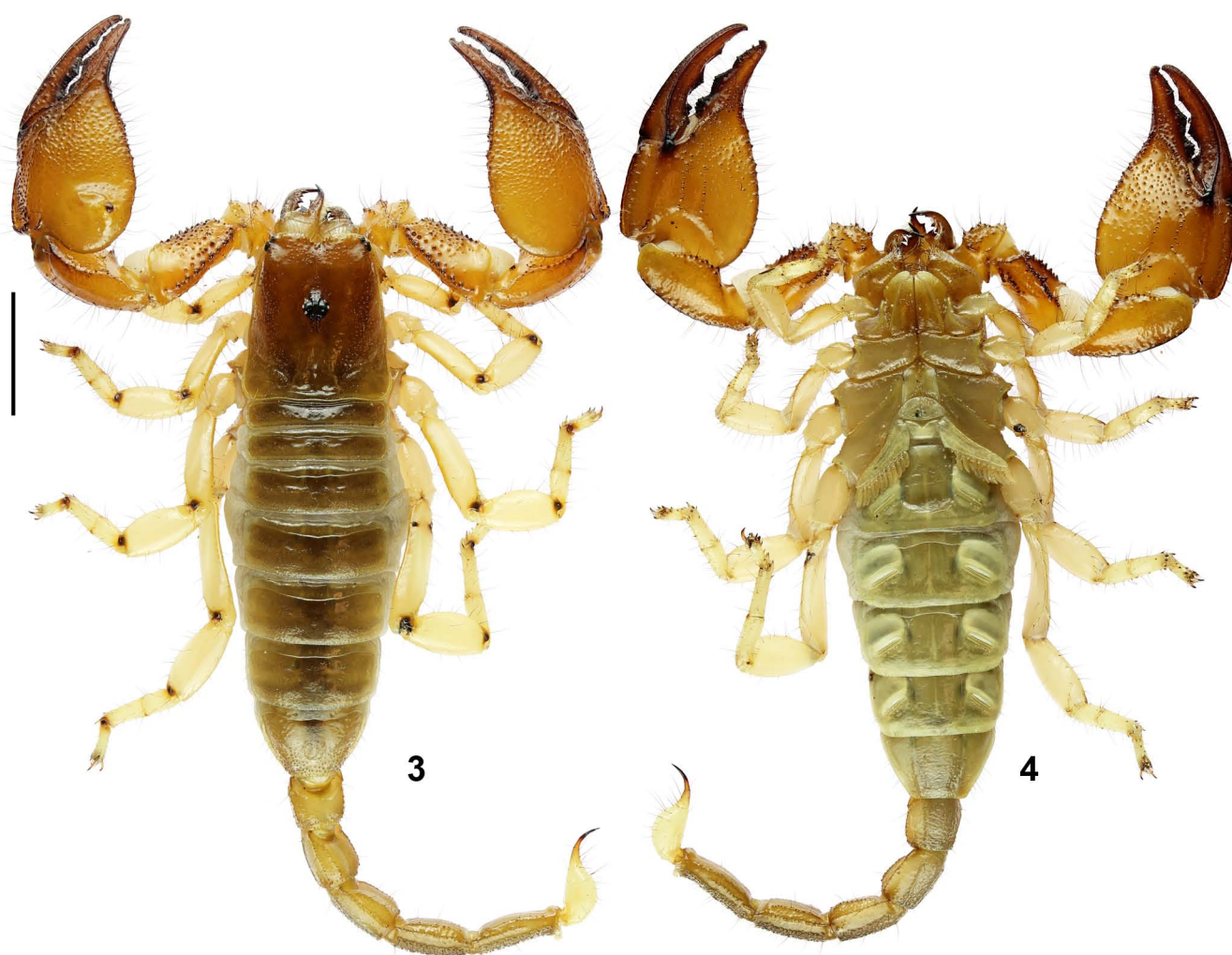
<http://zoobank.org/urn:lsid:zoobank.org:act:B16868ED-0FB9-4B50-9D53-3519439C0BEF>

TYPE LOCALITY AND TYPE REPOSITORY. **Somaliland**, Sahil Region, Laas Dhuure Village, 10.176807°N 45.983479°E, ca. 540 m a. s. l.; FKCP.

TYPE MATERIAL (FKCP). **Somaliland**, Sahil Region, Laas Dhuure Village, 10.176807°N 45.983479°E, ca. 540 m a. s. l. (Locality No. 21SK, see comments below), 1♂ (holotype, DNA No. 2885) 1 juv. (paratype), leg. F. Kovářík.

ETYMOLOGY. The species epithet “sahil” is given after the region of occurrence.

DIAGNOSIS (♂). Total length 80 mm. Base color uniformly yellowish/orange brown, legs and telson white to yellow, pedipalp and carapace orange. Carapace smooth in middle, covered by granules along margins. External trichobothria on patella number 14 (5 *eb*, 3 *esb*, 2 *em*, 1 *est*, 3 *et*); ventral trichobothria on patella number 28–29; internal trichobothria on chela number



**Figures 3–4.** *Pandinops sahil* sp. n., male holotype, dorsal (3) and ventral (4) views. Scale bar: 10 mm.

7, ventral trichobothria on chela number 11. Pedipalp chela hirsute. Pedipalp chela dorsally smooth to tuberculate, without pointed granules, lobe smooth. Chela internal smooth posteriorly and granulated in anterior part, with two longitudinal carinae indicated by 6–9 granules. Chela of male length/ width ratio is 2.05. Pectinal teeth number 12 in male. Sternite VII densely granulated to tuberculated. Metasoma I–II ventrally bumpy to tuberculate, metasoma III–V ventrally densely granulated; metasomal segments I–IV with ventral carinae absent. Length to width ratio of male metasomal segment V is 2.31. Spiniform formula of tarsomere II = 3/4: 3/4: 3/5: 3/5. Tarsomere II with 2 spines on inclined anteroventral surface.

**DESCRIPTION** (♂). The adult male is 80 mm long, female unknown. The habitus is shown in Figs. 1–4. For position and distribution of the trichobothria of pedipalps see Figs. 5–10. External trichobothria on patella number 14 (5 *eb*, 3 *esb*, 2 *em*, 1 *est*, 3 *et*); ventral trichobothria on patella number 28–29; internal trichobothria on chela number 7, ventral trichobothria on chela number 11.

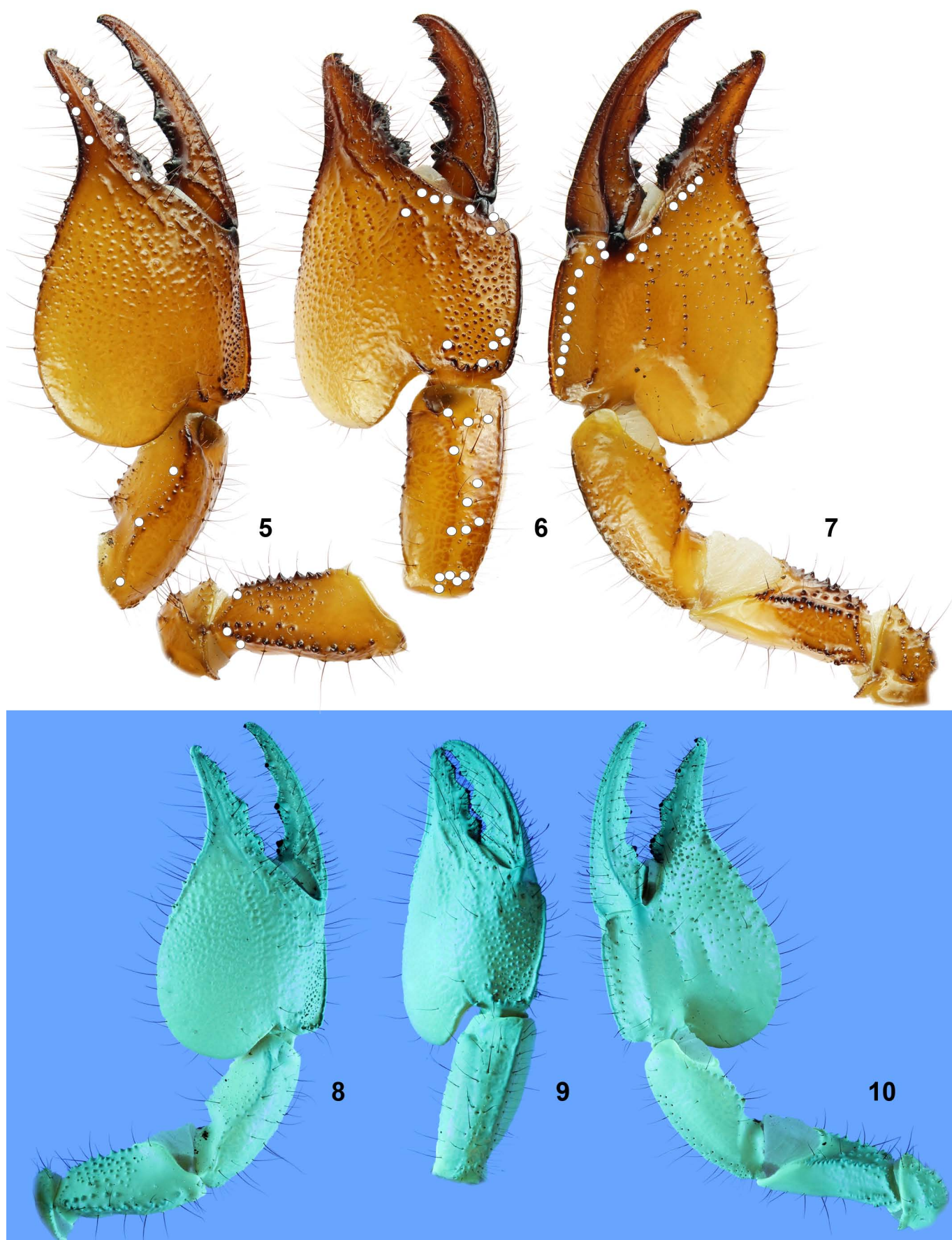
**Coloration** (Figs. 1–2). The base color is uniformly yellowish/orange brown, legs and telson white to yellow, pedipalp and carapace orange, chelicerae yellow.

**Carapace and mesosoma** (Figs. 13–15). The entire carapace is smooth in the middle, covered by granules along margins. The anterior margin of the carapace is symmetrically concave, medially strongly convex, and it bears several macrosetae. The tergites are smooth and finely granulated in the margins; tergite VII strongly granulated. The pectinal tooth count is 12 in male, female unknown. The pectine marginal tips extend to third quarter of the third sternite in the male. The sternites are smooth, without carinae, end of sternite VI, and sternite VII are densely tuberculated.

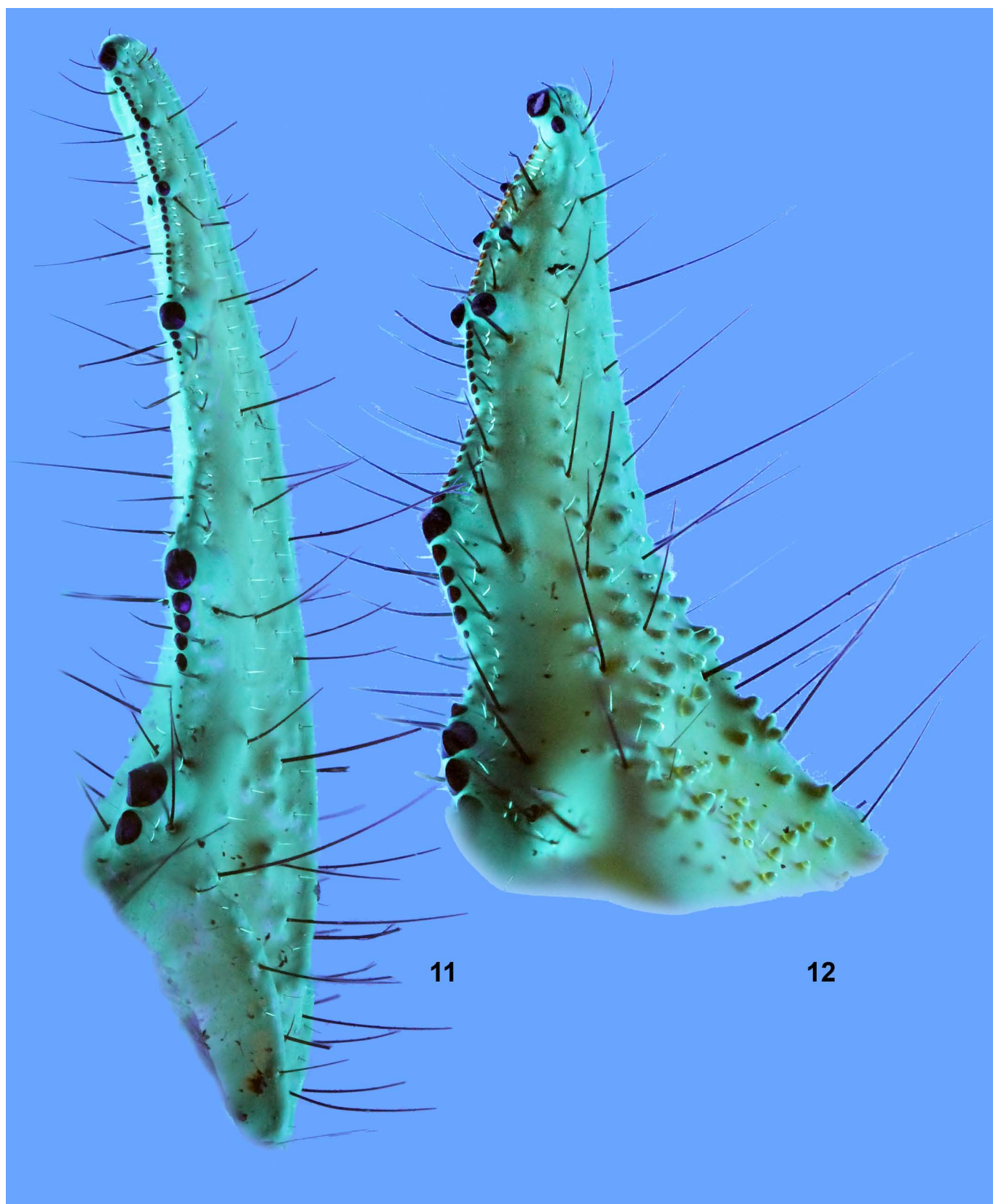
**Metasoma and telson** (Figs. 20–25). The metasomal segments I–IV bear a total of 6 sparsely granulated carinae. The ventral carinae are absent. The fifth segment has five variously developed and granulated carinae. The dorsal and lateral surfaces of the segments are smooth with several solitary granules. The metasoma I–II ventrally bumpy to tuberculate, metasoma III–V ventrally densely granulated. The entire metasoma and telson are hirsute. The telson is smooth, elongate, with the aculeus shorter than vesicle.

**Pedipalps** (Figs. 5–10). The pedipalps are hirsute. The femur is granulated and bears four carinae composed of strong granules. The patella is smooth to tuberculate, there are two externo lateral smooth carinae and one internal carina is



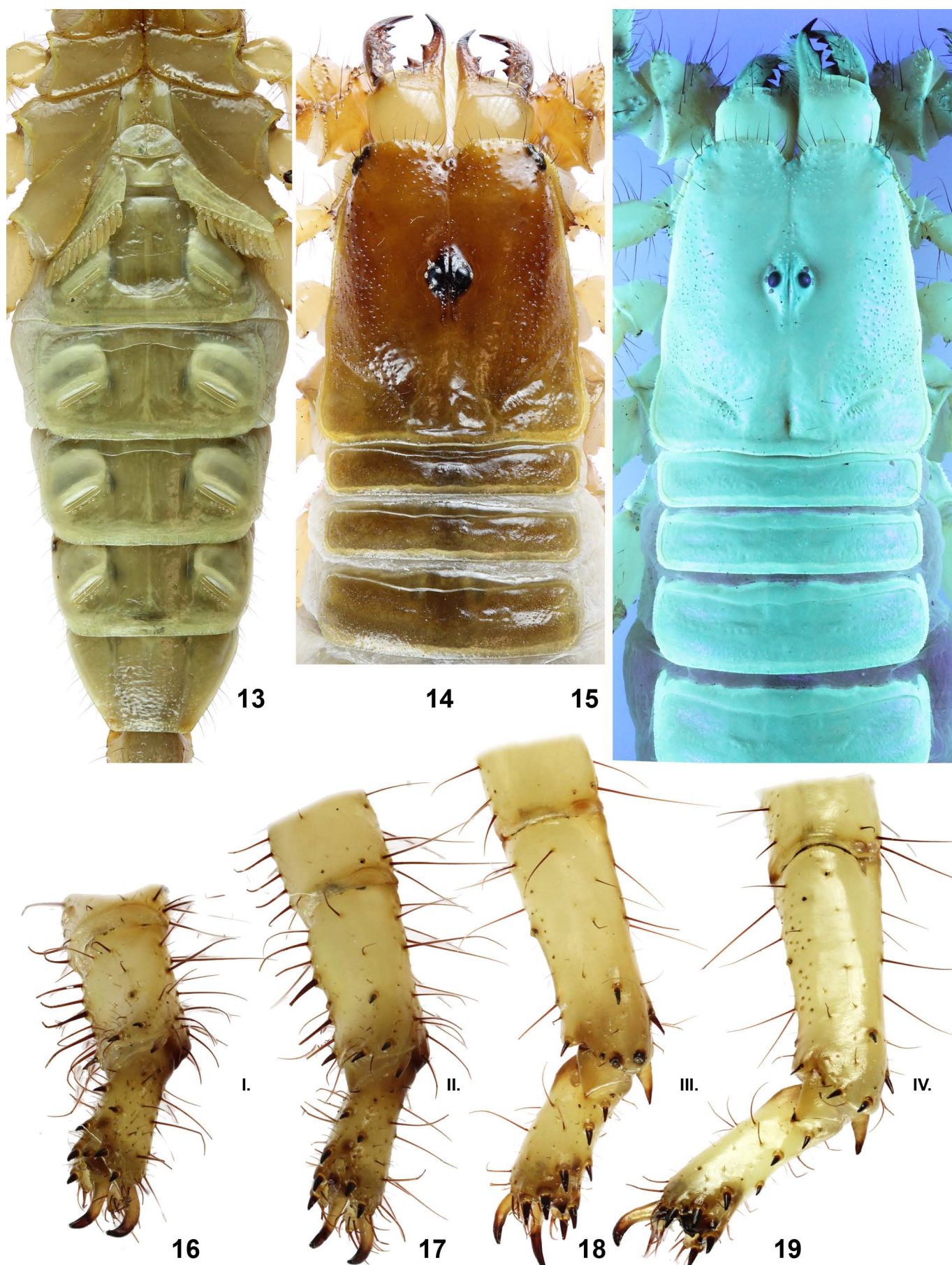


**Figures 5–10.** *Pandinops sahil* sp. n., male holotype. Pedipalp dorsal (5, 8), external (6, 9), and ventral (7, 10) views under white light (5–7) and under UV fluorescence (8–10). The trichobothrial pattern is indicated in Figures 5–7 (white circles) except 29 trichobothria on pedipalp patela ventral which are clearly visible on Fig. 10.



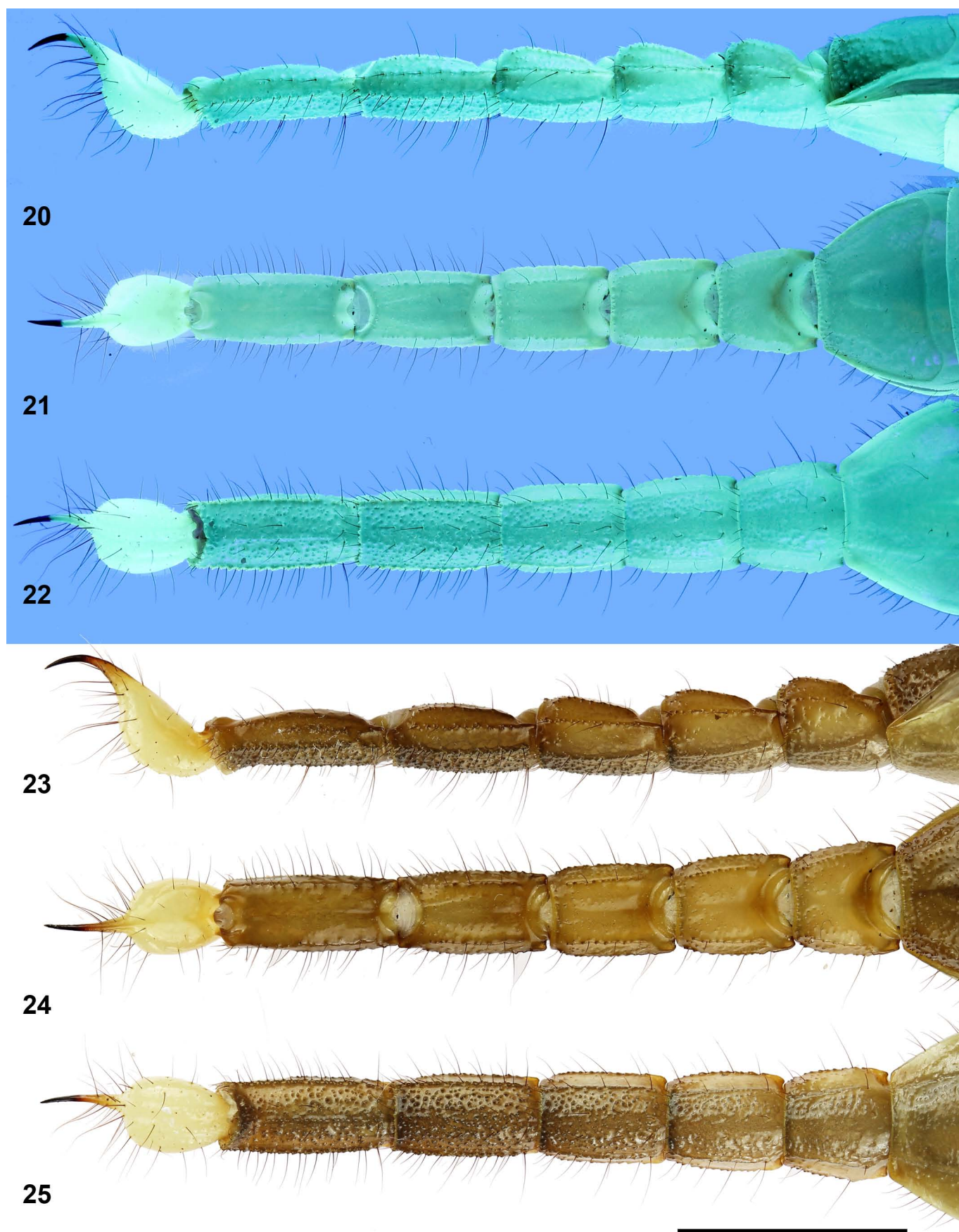
Figures 11–12. *Pandinops sahil* sp. n., male holotype, dentate margins of movable (11) and fixed (12) fingers under UV fluorescence.





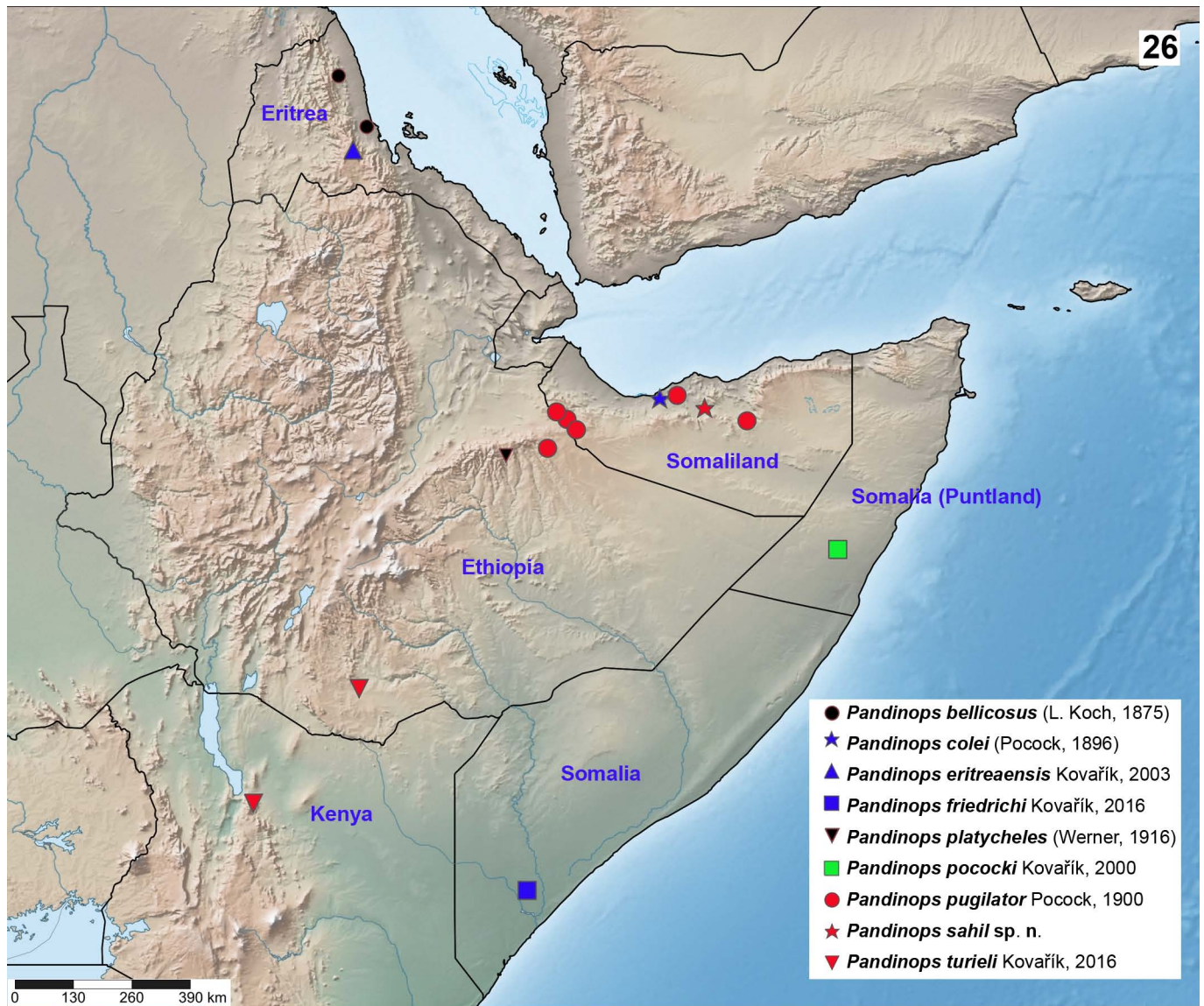
**Figures 13–19:** *Pandinops sahil* sp. n., male holotype. **Figures 13–15.** Sternoplectinal region and sternites (13), carapace and tergites I–III under white lights (14) and under UV fluorescence (15). **Figures 16–19.** Distal segments of left legs I–IV, retrolateral views.





**Figures 20–25.** *Pandinops sahil* sp. n., male holotype, metasoma and telson, lateral (20, 23), dorsal (21, 24) and ventral (22, 25) views under white light (23–25) and under UV fluorescence (20–22).





Figures 26–27: Figure 26. Map showing confirmed distribution of *Pandinops* spp. Figure 27. Type locality of *Pandinops sahil* sp. n.

indicated by 7–8 large granules. Pedipalp chela is dorsally smooth to tuberculate, without carinae and pointed granules, lobe smooth. Strong well defined granules are present on external surface. The chela internal is smooth posteriorly, granulated in anterior part, with two short characteristic longitudinal carinae indicated by 4–6 granules. The movable and fixed fingers of the pedipalp with distinct granules in a row divided into 5 rows by large concave granules.

**Legs.** All legs are without distinct carinae and smooth. The tarsomeres are hirsute by setae and macrosetae more densely on legs I–II. Spiniform formula of tarsomere II = 3/4: 3/4: 3/5: 3/5. Tarsomere II with 2 spines on inclined anteroventral surface.

**Measurements.** See Table 1.

**AFFINITIES.** The described features distinguish *P. sahil* **sp. n.** from all other species of the genus. They are recounted in the key below. The combination of two characters (metasomal segments I–II ventrally smooth to tuberculated; pedipalp chela narrow, length/ width ratio 2.05 in male) is unique in the entire genus *Pandinops*. *P. sahil* **sp. n.** is also characterized by light color (see Figs. 1–2), 12 pectinal teeth in male, and trichobothrial pattern (see Figs. 5–7).

**COMMENTS ON LOCALITIES AND LIFE STRATEGY.** Locality 21SK is a unique semidesert area (Fig. 27, fig. 66 in Kovařík, 2024, fig. 128 in Kovařík et al., 2024, and fig. 32 in Kovařík et al., 2025), which produced four new species. It is type locality not only for *Pandinops sahil* **sp. n.** but also for *Buthus pygmaeus* Kovařík et al., 2025, *Gint sahil* Kovařík et al., 2024, and *Sahil elmii* Kovařík, 2024. Other scorpions also recorded at the site were *Hottentotta polystictus* (Pocock, 1896) and *Parabuthus granimanus* Pocock, 1895.

Male holotype of *Pandinops sahil* **sp. n.** was found in a ca. 40 cm deep burrow with the entrance in open terrain.

### Key to the species of *Pandinops*

1. Metasomal segments I–II ventrally granulated (figs. 64, 66–67 in Kovařík, 2016). ..... 2
  - Metasomal segments I–II ventrally smooth or tuberculated (figs. 61–63 in Kovařík, 2016). ..... 3
2. Dorsal surface of pedipalp chela smooth to bumpy (fig. 14 in Kovařík, 2016). ..... *P. friedrichi*
  - Dorsal surface of pedipalp chela covered by tubercles/ granules (fig. 5 in Kovařík, 2016). ..... *P. pococki*
3. Pedipalp chela length/ width ratio is 1.56–1.63. .... 4
  - Pedipalp chela length/ width ratio is 1.68–1.85 (figs. 8, 32, 36 in Kovařík, 2016). ..... 5
  - Pedipalp chela narrow, length/ width ratio is 2.05 in male (Fig. 5). ..... *P. sahil* **sp. n.**
4. Pedipalp chela strongly lobated, length/ width ratio is 1.56 (fig. 1 in Kovařík, 2016). Pectinal teeth number 16 in male ..... *P. eritreaensis*

- Pedipalp chela length/ width ratio is 1.60–1.63 (fig. 3 in Kovařík et al., 2017). Pectinal teeth number 13–14 in males. .... *P. platycheles*
- 5. Dorsal surface of pedipalp chela entirely smooth to bumpy, without granules or tubercles (fig. 8 in Kovařík, 2016). . 6
  - Dorsal surface of pedipalp chela granulated or tuberculated (figs. 14–15 in Kovařík, 2016). ..... 7
- 6. Pectinal teeth number 19–21 in males. Ventral carinae on metasoma I–IV well developed (fig. 61 in Kovařík, 2016). ..... *P. bellicosus*
  - Pectinal teeth number 14–17 in males. Ventral carinae on metasoma I–IV absent or indicated only (fig. 65 in Kovařík, 2016). ..... *P. pugilator*
- 7. Dorsal surface of pedipalp chela entirely granulated by well defined granules, conical and pointed (fig. 309 in Kovařík, 2009: 116). ..... *P. colei*
  - Granules on dorsal surface of pedipalp chela not conical and pointed, their summits may be confluent, lobe of manus almost smooth (fig. 14 in Kovařík, 2016). ..... *P. turieli*

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