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Revision and cladistic analysis of the Guinea-Congolian spider genus *Smeringopina* Kraus (Araneae, Pholcidae)

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Table of contents

Abstract ... 4
Introduction ... 4
Material and methods ... 5
Cladistic analysis ... 5
Identification key ... 6
Taxonomy ... 6
Smeringopina Kraus, 1957 ... 6
guineensis group ... 10
Smeringopina pulchra (Millot, 1941) ... 10
Smeringopina bineti (Millot, 1941) ... 12
Smeringopina guineensis (Millot, 1941) ... 13
lekoni group ... 15
Smeringopina kinguele new species ... 15
Smeringopina mohoba new species ... 16
Smeringopina fang new species ... 16
Smeringopina tebe new species ... 18
Smeringopina lekoni new species ... 18
Smeringopina iboga new species ... 19
Smeringopina moudouma new species ... 20
Smeringopina ndjole new species ... 21
Smeringopina kikongo new species ... 22
attuleh group ... 23
Smeringopina attuleh new species ... 23
Smeringopina mbouda new species ... 23
Smeringopina fon new species ... 24
ankasa group ... 25
Smeringopina ankasa new species ... 25
Smeringopina bomfobiri new species ... 26
Smeringopina ibadan new species ... 27
cornigera group ... 28
Smeringopina armata (Thorell, 1899) ... 28
Smeringopina bamenda new species ... 28
Smeringopina cornigera (Simon, 1907) ... 29
Smeringopina nyasoso new species ... 30
Smeringopina kala new species ... 31
simplex group ... 32
Smeringopina camerunensis Kraus, 1957 ... 32
Smeringopina djidji new species ... 33
Smeringopina ogooue new species ... 33
Smeringopina bioko new species ... 35
Smeringopina etome new species ... 36
Smeringopina africana (Thorell, 1899) ... 36
Smeringopina simplex Kraus, 1957 ... 37
Smeringopina bwiti new species ... 38
Smeringopina luki new species ... 39
beninensis group ... 40
Smeringopina ebolowa new species ... 40
Smeringopina essotah new species ... 41
Smeringopina mayebout new species ... 42
Smeringopina simintang new species ... 43
Smeringopina belinga new species ... 44
Smeringopina beninensis Kraus, 1957 ... 45
Smeringopina kribi new species ... 45
Smeringopina sahoue new species ... 46
Smeringopina tchimbele new species ... 47
Smeringopina bayaka new species ... 48
Smeringopina chaillu new species ... 49
Smeringopina ngungu new species ... 50
Acknowledgements ... 50
References ... 51
Appendix 1. ... 52
Appendix 2. ... 54
Appendix 3. ... 55
Figures ... 59

Abstract

The genus *Smeringopina* Kraus, 1957 is revised, with redescriptions of the nine previously known species and descriptions of 35 new species. *Smeringopina* is largely restricted to the tropical forests of West and Central Africa. It includes both large species that build their domed sheet-webs in protected spaces near the ground, and small (probably derived) litter-dwelling species. With leg spans up to 18 cm the former group includes some of the largest pholcids known. A first cladistic analysis of *Smeringopina*, based on 68 morphological (including SEM) characters, suggests several well-defined species groups but also identifies some problematic species whose phylogenetic position needs further study. The 'Dahomey-Gap' separates two small western clades (the *guineensis* species group and two species of the *ankasa* group) from all other species. The following new species are described: *S. ankasa; S. attuleh; S. bamenda; S. bayaka; S. belinga; S. bioko; S. bomfobiri; S. bwiti; S. chaillu; S. djidji; S. ebolowa; S. essotah; S. etome; S. fang; S. fon; S. ibadan; S. iboga; S. kala; S. kikongo; S. kinguele; S. kribi; S. lekoni; S. luki; S. mayebout; S. mbouda; S. mohoba; S. moudouma; S. ndjole; S. ngungu; S. nyasoso; S. ogooue; S. sahoue; S. simintang; S. tchimbele; S. tebe*.

Key words: Pholcidae, Smeringopinae, *Smeringopina*, Africa, cladistic analysis, taxonomy

Introduction

For several relatively well-studied groups of organisms such as plants, amphibians, and reptiles, African forests seem to be less diverse than those of South America (White 2001, Livingstone 2001, Lawson & Klemens 2001, Antonelli & Sanmartín 2011). Several possible explanations have been proposed for this difference, including Pleistocene arid phases that may have been less severe in South America (and Southeast Asia) than in Africa; Africa's smaller area that is wet enough to support rain forest; and even the much longer history of human impact on African forests as compared to South America (reviewed in White 2001, Livingstone 2001, Lawson & Klemens 2001). However, it has also been argued that at least part of this difference may be artificial, resulting from our rudimentary understanding of the alpha-taxonomy of many African taxa (Lawson & Klemens 2001).

Pholcid spiders are highly diverse in tropical forests around the world, but in comparison to the Neotropics, the diversity of pholcids in Africa has long seemed to be small. In 2002, when I started to work on African Pholcidae, just 11% of the world's known species at that time were African (88 of 774). Whether this reflected a more general pattern or just taxonomic neglect was unclear. However, a variety of observations suggested that the latter was a likely explanation: (1) only four new African pholcid species had been described in the four decades from 1960 to 2002; (2) available collections, even though patchy and never specifically designed to explore pholcid diversity, seemed to contain many dozens of undescribed species; (3) more focused collecting efforts (e.g. in the Eastern Arc, on Madagascar, in Cameroon, in South Africa) were revealing not only high species numbers but also extraordinary levels of species turnover rates.

The genus *Smeringopina* Kraus, 1957 clearly exemplifies this situation. With the exception of the transfer of Millot's (1941) three West African species to *Smeringopina* by Huber (1995) and a single SEM photo in Huber & Fleckenstein (2008), nothing has been published about the genus since 1957. When Kraus (1957) erected the genus, only eight adult specimens from five species were available to him, and the type localities of three of the five species were only known at country level (Cameroon, Benin).

In the meantime, the situation has changed dramatically. Recent focused collecting trips have provided over 1000 adult specimens of *Smeringopina* from numerous localities. This fresh material finally allows redescriptions of poorly known 'old' species, reasonable estimates of the actual species diversity, and phylogenetic analyses. A more realistic picture is also emerging about African pholcid diversity in general. With the present publication, all major genera represented in Africa have been revised (Huber 2003a, b, c, 2007, 2009, 2011, 2012, Huber & Warui 2012), and the total number of species has more than tripled to 282. This is still just 20% of the currently known worldwide species-diversity, but this percentage is probably closer to reality than the 11% of a decade ago.

At the level of genera, African pholcids can now be considered relatively well known. However, the current revision also demonstrates clearly that much taxonomic work remains to be done in order to address basic questions such as the one outlined above. When four short collecting trips increase the number of species from nine to 44 (as in the present case), then it is safe to assume that the undiscovered diversity is still tremendous. This is especially true considering the fact that some of the areas with high species turnover rates (e.g. the northern margins of the Congo Basin and the western escarpment of Angola; see Linder *et al.* 2012) are basically unexplored with respect to pholcid spiders.

Material and methods

This review is based on the study of about 1320 adult specimens deposited in the following collections: American Museum of Natural History, New York (AMNH); Natural History Museum, London (BMNH); California Academy of Sciences, San Francisco (CAS); Museum of Comparative Zoology, Cambridge (MCZ); Muséum national d'Histoire naturelle, Paris (MNHN); Musée royal de l'Afrique Centrale, Tervuren (MRAC); Museo Civico di Storia Naturale "Giacomo Doria", Genova (MSNG); Naturhistoriska riksmuseet, Stockholm (NHRS); Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt (SMF); National Museum of Natural History, Washington D.C. (USNM); Zoologisches Forschungsmuseum Alexander Koenig, Bonn (ZFMK); Museum für Naturkunde, Berlin (ZMB); Zoologisches Institut und Zoologisches Museum, Hamburg (ZMH).

Methods and terminology are as in Huber (2000, 2012). Measurements are in mm unless otherwise noted. Eye measurements are +/- 5 µm. Drawings were done with a camera lucida on a Leitz Dialux 20 compound microscope. Cleared epigyna were stained with chlorazol black. Photos were made with a Nikon Coolpix 995 digital camera (2048 x 1536 pixels) mounted on a Nikon SMZ 1500 dissecting microscope. For SEM photos, specimens were dried in HMDS (Brown 1993), and photographed with a Hitachi S-2460 scanning electron microscope. SEM data are usually not based on the specimen described (e.g., in the case of holotypes).

Locality coordinates are in round brackets when copied from labels and original publications or when received directly from collectors, in square brackets when originating from some other source (such as online gazetteers, Google Earth, MRAC database, etc.). Distribution maps were generated with ArcMap 10.0. The numerical cladistic analyses were done using NONA, version 2 (Goloboff 1993), Pee-Wee, version 2.8 (Goloboff 1997), and TNT, version 1.1 (Goloboff *et al.* 2004, 2008). The matrix (104 taxa, 68 characters) is based on that in Huber (2012), but 43 species of *Smeringopina* and 28 characters were added (Appendix 1); terminal taxa and characters scored are given in Appendices 2 and 3. Of the 68 characters, 65 are binary, the other three are treated as nonadditive. Note that character 1 is uninformative in the present dataset. It was left in the matrix because it may become informative when further Smeringopinae and outgroup taxa are added in future versions. It was deactivated for the calculation of tree statistics. The final matrix can be downloaded at http://www.pholcidae.de/matrices.html. Cladogram analysis was done with Winclada, version 1.00.08 (Nixon 2002). See Cladistic analysis section below for details of the analyses.

Further abbreviations:

ALE	anterior lateral eye
ALS	anterior lateral spinneret
AME	anterior median eye
L/d	length by diameter (of tibia)
PME	posterior median eye
PMS	posterior median spinneret

Cladistic analysis

Preliminary analyses including all species of *Smeringopina* treated herein revealed that the highly aberrant *S. ngungu* was also the most difficult to place in the cladogram. It ended up at various positions close to the basal nodes in *Smeringopina*, resulting in many trees and a consensus with large polytomies. For this reason, *S. ngungu* was deleted from the final matrix. It may be correctly placed in *Smeringopina* (proximal cheliceral apophyses) but it is basically considered *incertae sedis*.

Using NONA with **hold/100**, **mult*200** (or **hold/10; mult*10.000)**, and **amb-** for the matrix in Appendix 1 and equal character weights resulted in four most parsimonious cladograms with a length of 141 (Ci = 49; Ri = 91). Within *Smeringopina*, these four cladograms were all identical (Fig. 1). Using TNT with various parameters in the New Technology search strategies resulted in the same most parsimonious cladograms. Successive weighting in NONA (with the consistency index as weighting function) resulted in very similar two most parsimonious cladograms with the same tree statistics. Within *Smeringopina*, these two cladograms were both identical to the cladogram shown in Fig. 1. Differences among cladograms occurred only among outgroup taxa and in *Smeringopus*, as detailed in Huber (2012).

Implied weighting in Pee-Wee (which resolves character conflict in favor of the characters that have less homoplasy) was used with various settings of the constant of concavity K (1–6) to explore the stability of different clades under different weighting regimes. As in the analyses above, variation was found among outgroup taxa and in *Smeringopus*, but not within *Smeringopina*. All settings of K resulted in the identical tree (Fig. 1) as far as *Smeringopina* was concerned.

Identification key

This key is designed to identify the species groups of *Smeringopina*. Species within species groups are best identified by comparing diagnostic figures.

1 Male chelicerae with very long proximal cheliceral apophyses and clypeus with strong median projection (Fig. 850); procursus distal part simple and slender, bent toward dorsally (Fig. 852); epigynum with pair of membranous projections anteriorly, sclerotized part very small, arc-shaped (Fig. 854) …… ***S. ngungu***

- Male chelicerae, procursus, and epigynum different …… 2

2 Ventral abdominal pattern with light U-shaped element (Figs. 37, 42, 49); procursus with ventral hairs curved around it retrolaterally and pointing toward dorsally (Figs. 57, 77, 97); procursus with sclerite embedded in dorso-distal membranes (Figs. 56, 70, 77, 85); posterior epigynal plate with pair of sclerotized areas forming distinct anterior sclerite (Figs. 53-55) …… …….. ***guineensis* group**

- Ventral abdominal pattern different (light transversal element absent or straight); procursus and posterior epigynal plate different …….... 3

3 Male ocular area with horns (Figs. 413, 415, 427, 445); procursus with dense retrolateral brush of hairs (Figs. 429, 434, 448); epigynum anterior plate deeply indented posteriorly (i.e., with pointed lateral projections directed toward posteriorly; Figs. 437, 443, 460) ……..……..…… ***cornigera* group**

- Male ocular area without horns; procursus with few retrolateral hairs; epigynum anterior plate either not deeply indented posteriorly, or indented but lateral projections directed toward posteriorly not pointed) ……... 4

4 Abdomen relatively short (~2.0-2.5 x longer than wide); total body length 2.5-6.0 mm; tibia 2 / tibia 4: 0.8-1.0; male palpal femur without ventral sclerotized ridge proximally ……5

- Abdomen relatively long (~3.0-6.0 x longer than wide); total body length 6.5-10.0 mm; tibia 2 / tibia 4: 1.0-1.2; male palpal femur with ventral sclerotized ridge proximally (Figs. 477, 497, 637) …… 8

5 Male palpal femur with strong retrolateral apophysis directed toward ventrally (Figs. 145, 152); abdomen ventral dark bands with lateral constriction (Figs. 165-172; except *S. kinguele*); posterior epigynal plate laterally folded backwards to produce an overhang (Figs. 180, 230, 251; except *S. kinguele*) …… ***lekoni* group**

- Male palpal femur with retrolateral ridge bordering whitish ventral area (Figs. 303, 317); abdomen ventral dark bands absent or without lateral constriction; posterior epigynal plate laterally simple, not folded backwards to produce an overhang ……... 6

6 Legs relatively stout (tibia 1 L/d <60); male palpal coxa without retrolateral projection; male chelicerae with distinctive frontal projections densely covered by >20 cone-shaped modified hairs (Figs. 320, 326) …….. ***attuleh* group**

- Legs very slender (tibia 1 L/d >60); male palpal coxa with retrolateral hump or apophysis; male chelicerae without or with fewer (<15) modified hairs …… 7

7 Male clypeus with median projection (Fig. 314); epigynum as in Figs. 310 and 347…… ***S. fon***

- Male clypeus unmodified; epigynum different ……. ***ankasa group***

8 Procursus simple, with single pointed tip (Figs. 488, 498); male palpal femur without ventral pocket; embolus proximally weakly sclerotized, barely widened, not sculptured (Figs. 544, 550); females not easily distinguished from those of *beninensis* group …… ***simplex* group**

- Procursus either with complex tip or with ventral branch (Figs. 739, 751, 792, 830); male palpal femur with ventral pocket (Figs. 727, 765); embolus proximally sclerotized, widened and often sculptured (Figs. 718-721, 763, 799-800); females not easily distinguished from those of *simplex* group ……... ***beninensis* group**

Taxonomy

Smeringopina Kraus, 1957

Smeringopina Kraus 1957: 233; type species by original designation: *Smeringopina beninensis* Kraus, 1957.

Diagnosis. Small to large pholcids (body length about 2.5-10) with oval to elongate abdomen (Figs. 2-31), deep thoracic pit (Figs. 65, 330, 334, 726), and long legs (leg 1 about 7-12 x body length). Distinguished from other Smeringopinae genera by presence of proximal lateral apophyses on male chelicerae (e.g. Figs. 59, 380, 782) and by presence of ventral or retrolateral apophysis on male palpal trochanter; from most Smeringopinae (except

Smeringopus) also by male gonopore with only two epiandrous spigots (instead of four; e.g. Figs. 72, 219, 453, 736) and by absence of stridulatory ridges on chelicerae; from most Smeringopinae (except *Smeringopus* and *Cenemus*) also by absence of spines on male femora; from most species groups of its putative sister genus *Smeringopus* also by male palpal femur without deep retrolateral furrow (cf. figs. 344, 411 in Huber 2012), and legs without curved hairs on tibiae and metatarsi.

Description. Male: Total body length 2.4-10.2 (usually ~3-8); carapace width 0.9-2.1. Carapace with deep pit and pair of shallow furrows diverging toward posterior rim; ocular area weakly raised, eye triads relatively close together (distance PME-PME about 0.8-1.8 x PME diameter), each secondary eye accompanied by more or less distinct elevation (Figs. 67, 87, 593; 'pseudo-lenses'; cf. Huber 2009), AME relatively large, in low position. Clypeus high, either unmodified or with various kinds of simple to highly complex modifications (modified hairs, median or paired projections; e.g. Figs. 190, 211, 246, 271, 427, 432, 446, 725, 778, 850). Chelicerae never with stridulatory ridges, usually with pair of proximal lateral apophyses (shifted to a more distal position in the *lekoni* group), often with modified hairs on distal cheliceral apophyses and/or frontal cheliceral face (e.g., Figs. 68, 335-336, 446, 619, 733-735). Palpal coxa with or without retrolateral hump or apophysis; trochanter with ventral or retrolateral apophysis; femur rarely simple, usually with various kinds of modifications (e.g., ventral rim, ventral pocket, retrolateral apophysis, retrolateral flap bordering whitish ventral area, distal ventral projection), without deep retrolateral furrow; prolateral femur-patella joint often strongly shifted toward ventrally (e.g. Figs. 127, 130); palpal tarsus sometimes with dorsal macrotrichia (Figs. 476, 481, 488, 493, 597, 615), palpal tarsal organ capsulate (Figs. 69, 216, 235, 597, 610); procursus very variable from extremely simple to highly complex, sometimes with hinge dividing proximal from distal part (Figs. 541, 785), tip usually with sclerotized and membranous structures; bulb with only one process, sperm duct either traversing this process completely (embolus; e.g. Figs. 728, 764) partly (e.g. Fig. 338) or opening at the basis of the process (e.g. Figs. 218, 243).

Legs long and thin, leg 1 length 17-91 (usually ~20-85), tibia 1 length 4.2-20.9 (usually ~8-20), tibia 2/tibia 4 length 0.8-1.2 (tibia 2 tends to be relatively longer in large space-dwelling species; tibia 4 relatively longer in small litter-dwelling species). Tibia 1 L/d usually ~65-115, lower only in the two representatives of the *attuleh* group (55). Legs without spines on femora, without curved hairs on tibiae and metatarsi, retrolateral trichobothrium very proximal (at 1.0-2.5%), prolateral trichobothrium always present (also on tibiae 1). Tarsal pseudosegments very indistinct, apparently never regular rings but rather indistinct irregular rings or platelets (Figs. 94, 828). Tarsus 4 with two rows of prolatero-ventral comb-hairs (Figs. 93-95, 828).

Abdomen oval to cylindrical, posteriorly pointed at spinnerets, never elevated above spinnerets, usually with distinct dark pattern dorsally, oblique lines or marks laterally, and distinctive ventral pattern (e.g., Figs. 46-49, 163-173, 678-693). Male gonopore always with only two spigots (e.g. Figs. 72, 219, 453, 736), each ALS with large widened spigot, pointed spigot, and 5–6 cylindrically shaped spigots (e.g. Figs. 71, 244, 278, 566); PMS with two spigots each (Fig. 566).

Female usually very similar to male, clypeus and chelicerae unmodified, ocular area unmodified or with much smaller horns than male (Fig. 454); legs usually slightly shorter than in male. Epigynum usually consisting of large, simple anterior plate and relatively large posterior plate; anterior plate sometimes with simple paired or unpaired projections (Figs. 206, 520, 689), rarely with pair of pockets (Fig. 230). Internal genitalia with frontal valve that is sometimes hidden behind other structures in dorsal view; pores of pore plates mostly homogeneously distributed (Figs. 62, 189, 592), rarely in groups (Figs. 196, 210).

Monophyly. The cladistic analysis identifies four synapomorphies for *Smeringopina*: (1) abdomen ventrally with one pair of dark lines (char. 7); (2) male chelicerae with lateral apophyses directed toward proximally (char. 17); (3) presence of modified hairs on male distal lateral apophyses (char. 23); (4) male palpal trochanter with ventral to retrolateral apophysis (char. 31). The first character is problematic (see Appendix 3). The second and fourth characters may be functionally related (Huber 1995, 2002; Uhl *et al.* 1995). Preliminary analyses of molecular data that included representatives of four species groups (*guineensis* group; *attuleh* group; *cornigera* group; *beninensis* group) and several representatives of *Smeringopus*, mostly resolved *Smeringopina* as monophyletic (Dimitrov, Astrin & Huber 2013).

Generic relationships. The present analysis supports the close relationship between *Smeringopus* and *Smeringopina* proposed in Huber (2012) and confirmed by molecular data (Dimitrov, Astrin & Huber 2013). Since the characters considered informative among Smeringopinae genera are basically the same as those in Huber (2012), relationships among genera are unchanged and not further discussed here.

Specific relationships. Based on the cladistic analyses above, *Smeringopina* is here divided into nine operational species groups, two of them monospecific. Most species groups appear well supported by synapomorphies, but relationships among species groups are partly poorly supported and dubious. In the descriptive section below, species are ordered according to species groups in the order used here (which in turn is derived from the cladogram in Fig. 1).

1. *guineensis* group. This group includes the three West African (Fig. 33) species described by Millot (1941): *S. guineensis*, *S. bineti*, and *S. pulchra*. The monophyly of the group is strongly supported by several synapomorphies, some of them unique among Pholcidae: ventral abdominal pattern with light U-shaped element (char. 9); palpal femur with large round bulge ventro-distally (char. 38); procursus with ventral hairs curved around it retrolaterally and pointing toward dorsally (char. 48); procursus with sclerite embedded in dorso-distal membranes (char. 52); posterior epigynal plate with pair of sclerotized areas forming distinct anterior sclerite (char. 62); and internal female genitalia with globular structures between 'valve' and epigynal plate (char. 67).

2. *lekoni* group. This group includes nine new species (*S. kinguele*; *S. mohoba*; *S. fang*; *S. tebe*; *S. lekoni*; *S. iboga*; *S. moudouma*; *S. ndjole*; *S. kikongo*). Three characters support the entire group: proximal lateral cheliceral apophyses shifted to distal position (char. 18); absence of original pair of distal lateral apophyses (char. 22); and strong retrolateral apophysis on palpal femur bent toward ventrally (char. 35). *S. kinguele* is quite exceptional (shape of procursus; paired clypeus modification) and its position requires further study. All species except *S. kinguele* share three further synapomorphies: dark ventral abdominal bands with lateral constriction (char. 10); palpal coxa with retrolateral apophysis (char. 30); and posterior epigynal plate with lateral overhanging folds (char. 61). The species group includes mostly small, litter-dwelling species and is most diverse in Gabon but ranges further south at least until western Congo D.R. (Fig. 114).

3. *attuleh* group. The two species included in this group (*S. attuleh*; *S. mbouda*) are very similar (e.g. shapes of male chelicerae, procursus, and embolus; these are the only species in *Smeringopina* with tibia 1 L/d < 60) and geographically close (Cameroon range; Fig. 293). Even though the cladistic analysis identifies only one synapomorphy (other similarities were difficult to code across the entire matrix), the two species are very probably indeed sister taxa.

4. *S. fon*. This widely distributed (Fig. 293) species is problematic and requires further study. The male palpal femur (char. 34) places it in a group together with the *attuleh*, *ankasa*, and *cornigera* groups. The male clypeus and embolus seem to suggest an affinity with the *lekoni* group.

5. *ankasa* group. This West African group (*S. bomfobiri*; *S. ankasa*; *S. Ibadan*; Fig. 293) is characterized by a hinged procursus (char. 45). In contrast to other species groups with hinged procursus (*simplex* and *beninensis* groups), the hinge is in a very distal position.

6. *cornigera* group. This group includes five species (*S. armata*; *S. bamenda*; *S. nyasoso*; *S. cornigera*; *S. kala*) whose monophyly appears well supported by the presence of ocular horns (char. 2) and the brush of hairs retrolaterally on the procursus (char. 47). Except for *S. kala* (southern Cameroon) and an undescribed species from Bioko Island (only females known, in CAS), the group is restricted to the Cameroon range (Fig. 390).

7. *simplex* group. This large group (nine species: *S. camerunensis*; *S. djidji*; *S. ogooue*; *S. bioko*; *S. etome*; *S. africana*; *S. simplex*; *S. bwiti*; *S. luki*) is characterized by a highly simplified procursus with pointed tip (char. 43). It is here seen as the sister-group of the *beninensis*-group, supported primarily by the strong ventral ridge proximally on the male palpal femur (char. 36). Other characters supporting this relationship are partly not clearly visible in the *simplex* group (e.g. the procursus hinge, possibly due to the simplification of the procursus), or not easily coded (palpal tarsus macrotrichia, not easy to differentiate clearly from 'normal' hairs). The *simplex* group ranges from the Cameroon range to western Congo D.R. (Fig. 468).

8. *beninensis* group. This largest group (eleven species: *S. ebolowa*; *S. essotah*; *S. mayebout*; *S. simintang*; *S. belinga*; *S. beninensis*; *S. kribi*; *S. sahoue*; *S. tchimbele*; *S. bayaka*; *S. chaillu*) is supported by two synapomorphies: palpal femur with proximal ventral pocket (char. 37); and proximally sclerotized and usually widened and sculptured embolus (char. 55). Together with the *simplex* group, it includes the largest species in the genus; the two groups also largely share the geographic distribution (western Cameroon and Gabon; the type species *S. beninensis* is a notable outlier; Fig. 627).

9. *S. ngungu*. In preliminary cladistic analyses, this highly unusual species was either considered sister to all other *Smeringopina* species or was placed at other places close to basal nodes within *Smeringopina*. The species was thus deleted from the final matrix and is here considered *incertae sedis*.

Natural history. Most or all species of *Smeringopina* seem to be restricted to humid tropical forests. This is in contrast to many species of its sister genus *Smeringopus* (Huber 2012), but also to most other Smeringopinae genera from the Mediterranean and Middle East that seem to support considerable levels of insolation and aridity. This probably explains the fact that no species of *Smeringopina* is known to be synanthropic, while several other Smeringopinae genera have highly synanthropic species (most notably *Holocnemus*, *Crossopriza*, and *Smeringopus*).

Most species were collected in well preserved forests or forest fragments from sea level to 1800 m. Only the two representatives of the *attuleh* species group have been found beyond 1800 m, up to 2450 m. Large species require large sheltered spaces like those among and under rocks or between large tree buttresses. In forests where large trees and rocks were missing, juveniles where sometimes found among low vegetation but adult spiders were difficult to find (e.g. *S. chaillu* in the Massif du Chaillu, sites 1 and 3; *S. simintang* near Simintang; *S. ogooue* at Lekoni River). Small species require relatively large dead leaves that are curved in a way to provide a protected space between leaf and ground. In addition, the leaf litter must provide sufficient humidity. In degraded forest fragments with very dry litter (e.g. NE Makokou and at hill near Mouanda, Gabon; lower site in Atewa Hills, Ghana) I could not find any litter-dwelling species.

In general, *Smeringopina* species tend to inhabit the lowest layers in the forest. Whenever they occur sympatrically with species of other genera that share the same type of microhabitat (especially *Pholcus*), *Smeringopina* is closer to the ground and more difficult to access (in hollows, under roots, etc.). This was observed repeatedly, e.g. in Koumbaya, Guinea (*S. bineti* near ground, *Pholcus kindia* slightly higher) or Bamboutos, Cameroon (*S. mbouda* near ground, *Pholcus bamboutos* slightly higher).

There seems to be a tendency for species that tolerate disturbed habitats to have wider distributions. For example, *S. bineti* was found in cavities of roadcuts in a sparsely forested site near Marela in Guinea; *S. pulchra* was found in degraded forests in the Atewa Hills and near Booyem in Ghana; *S. ebolowa* was collected from man-made holes in the ground near Koukoué and near Nkoetye in Cameroon; *S. ogooue* was found in a highly degraded forest patch on a hill near Mouanda and in a degraded dry forest along the road NE of Makokou in Gabon. On the other hand, many of the species that were found at only one locality were found in well conserved, humid forests (e.g. *S. essotah* in Essotah; *S. tchimbele* and *S. kinguele* in Monts de Cristal; *S. nyasoso* on Mt. Koupé; *S. tebe* near Tébé; *S. lekoni* at Lekoni River; *S. mohoba* near Mohoba Mozeye).

While West African localities rarely provided more than one species of *Smeringopina*, localities in Cameroon, Gabon, and Congo D.R. usually provided two or even three species. In most cases, a large species (*simplex* group or *beninensis* group) shared the forest with a small species (*cornigera* group, *lekoni* group, *attuleh* group). In some cases, three species were found at one locality, as e.g. in Mayebout (two large and one small species: *S. ogooue*, *S. mayebout*, and *S. fang*), Ndjolé (one large and two small species: *S. bayaka*, *S. fang*, and *S. ndjole*), or Kakum N.P. (one large and two small species: *S. pulchra*, *S. ankasa*, *S. bomfobiri*). In such cases it was usually impossible to see any difference in microhabitat among the two same-size species (also in the case of the two large species *S. africana* and *S. kribi* between Kribi and Campo in Cameroon). Only in Mayebout (Gabon) was there a tendency for one of the large species (*S. mayebout*) to prefer hollow trees and cavities in the ground, while the other large species (*S. ogooue*) was rather found among tree buttresses.

As usual in Pholcidae, *Smeringopina* species usually vibrate their bodies when disturbed but do not or only reluctantly move away to hide (e.g. *S. bineti*, *S. mbouda*). Another strategy to avoid predation was frequently observed in species living among large rocks or tree buttresses. The spiders quickly moved toward the rock and pressed their bodies flat on the rock which often made them very difficult to locate, especially when mosses covered the rock surface (e.g. *S. essotah* in Essotah). In *S. guineensis*, both strategies were observed in Diéké Forest. In *S. ogooue*, strategies seemed to vary among localities: in the forests near Bongoville and Moudouma, the spiders fled extremely rapidly at the slightest disturbance, making capture very difficult; at the entrance to the Pahon Pira cave near Lastoursville they just vibrated and were easy to catch.

Males and females were often found to share a web. Females carry their round to slightly elongate eggsacs until the spiders hatch and even a short while after that (e.g. Figs. 3-4, 24-25, 31). Most or all species of *Smeringopina* build the 'typical' pholcid dome-shaped webs with a tangle of lines above the sheet (Figs. 17-18). The dome may be strongly curved and in rare cases even spherical (seen in *S. bineti* near Koumbaya), a facultative web-type that has been reported for *Holocnemus pluchei* (Sedey & Jakob 1998). Silk balls that are facultatively attached to the webs and that may be a synapomorphy of Smeringopinae (Huber 2012) have never been observed in *Smeringopina*.

In *S. simplex*, a pointed process ventrally on the procursus (Fig. 588) might be related to the scars found in the membranous part of the anterior genital plate of most females. This might thus constitute a case of copulatory genital damage.

Small nematocerous flies were often found hanging from the webs of *Smeringopina* species, sometimes in high numbers (Fig. 18). This was most common in large webs (e.g. *S. simplex* above Nyasoso; *S. guineensis* on Mt. Nimba; *S. pulchra* in Ghana; *S. chaillu* in the Massif du Chaillu; *S. kribi* between Kribi and Campo), but also in the webs of litter-dwelling species (e.g., *S. nyasoso* at Mt. Koupé; *S. moudouma* in Moudouma; *S. bomfobiri* in Bomfobiri W.S.).

Distribution. *Smeringopina* seems restricted to West and Central Africa, ranging from Guinea to western Congo D.R. (Fig. 32). It is possible that the genus ranges into northern Angola and further east into the Central Congolian lowland forests but these regions are too poorly sampled to allow conclusions.

Composition. *Smeringopina* now includes 44 described species, 35 of which are newly described below. The collections seen include about five further undescribed species that are not treated because males are not known. Considering the patchiness of collecting efforts and known distribution patterns in the genus, it appears likely that 50% or more of the actual species remain undescribed. This is especially true for the Northwestern Congolian lowland forests, whose Gabonese part provided numerous species in a few days of collecting but whose Cameroonian and Congolese parts are essentially unexplored.

guineensis group

Smeringopina pulchra (Millot, 1941)

Figs. 5, 34-40, 53, 56-75

Smeringopus pulcher Millot 1941: 20-22, figs. 8A–K.
Smeringopina pulchra: Huber 1995: 299 (transfer to *Smeringopina*). Huber & Fleckenstein 2008: fig. 14 (SEM of comb hairs).

Types. ♂ holotype from Ivory Coast, Bingerville [5°21.6'N, 3°54'W], ix.1937 (J. Millot), in MNHN (Ar 10482), with original label: "Sm. pulcher M., Type, J. Millot rec. et. det., Bingerville, C. d'Iv., IX 37". 6♂6♀ 2 juvs. paratypes, same data as holotype, in MNHN (Ar 10476, 10477, 10479). 1♂2♀ 2 juvs. paratypes from Ivory Coast, Man [7°24.6'N, 7°33'W], ix.1937 (J. Millot), in MNHN (Ar 10478, 10493). 1♂ paratype from Guinea, Macenta [8°32.5'N, 9°28.2'W], viii.1937 (J. Millot), in MNHN (Ar 10481); all types examined.

Notes. Millot (1941) did not explicitly designate a holotype in his publication but he separated a male and labeled it as "Type". This is here considered the holotype.

The male paratype from Macenta (Guinea) is somewhat dubious (labeling error?) because *S. pulchra* could not be found in any Guinean locality during a recent expedition (only *S. guineensis* was found in eastern Guinea).

Other material examined. IVORY COAST: Lamto [6°13.2'N, 5°01.8'W], 17./28.vi.1963, collector not given, 1♂5♀ (2 vials) in MNHN. Abidjan [5°22.2'N, 4°03.0'W], 17.vi.1958 (E.S. Ross, R.E. Leech), 1♂ in CAS. Adiopo Doumé, Centre Suisse de Recherche Scientifique (CSRS), small dry forest, beating, 25.ii.2010 (D. van den Spiegel, R. Jocqué), 1♂7♀ 1 juv. in MRAC (230358 part); same locality, 25./26.ii.2010, sieving litter, 2♂3♀ + juvs. (2 vials) in MRAC (230222, 230360 part). Appouesso, Forêt classée de la Bossematié [6°36.9'N, 3°27.1'W], dense forest, in webs between tree buttresses, xi.1993 (R. Jocqué), 2♂ in MRAC (177658); same data but 30.xi.1993, 1♂ in MRAC (177613 part); same locality, 20.xi.1993, dense forest, transect, 1♂1♀ in MRAC (177664); same locality, dense forest, 19.xi.1993, 1♂1♀ in MRAC (177651); same locality, rain forest, in web of *Euprosthenops* [Pisauridae], 18.xi.1994, 2♀ in MRAC (201073); same locality, rain forest, 24.ii.1997 (R. Jocqué, L. Baert), 1♀ in MRAC (205414 part). Bettié, Forêt classée de Mabi [6°04.2'N, 3°24.6'W], dense forest, by hand, 23.xi.1993 (R. Jocqué), 1♀ in MRAC (177635); same locality, forest road, on car, 25.xi.1993 (R. Jocqué), 1♂1♀ in MRAC (177696). Forêt des Marais-Tanoé, Aboisso, Dohouan [5°10'N, 2°50'W], beating, 25.x.2010 (A. Kablan), 1♀ in MRAC (233748). Guiglo [6°32.4'N, 7°28.8'W], viii.1979 (Mission R.U. Gent), 1♀ in MRAC (152038). Forêt de Taï, station du Centre de Recherche Ecologique (CRE), forest across river [5°50'N, 7°21'W], near pitfalls III, forest on clayey soil, beating, 20.ii.2010 (M. Diarassouba, R. Jocqué), 1♂1♀ in MRAC (230287); same locality, forest near camp, by hand, 21.ii.2010 (R. Jocqué), 1♀ in MRAC (230136); same locality, road near Chimpanzee Camp, beating in forest, 22.ii.2010, 2 juvs. in MRAC (230346 part); same locality, 20.ii.2010, 1♀ 1 juv. in MRAC

(230470); same locality, at foot of trees, by hand, 22.ii.2010 (R. Jocqué), 1♂ in MRAC (230146 part); same locality, forest E of camp, layon Gérard, inundated forest, sieved litter, 20.ii.2010 (R. Jocqué, L. Oulaï), 1♂3♀ in MRAC (230243).

GHANA: *Western Region*: Ankasa National Park (5°13.0'N, 2°39.1'W), 180 m a.s.l., forest near entrance, day collecting, 22.ii.2013 (B.A. Huber), 10♂8♀ in ZFMK (Ar 10163); same data but night collecting, 6♂3♀ in ZFMK (Ar 10164); same data, 3♀ in pure ethanol, in ZFMK (Gha 158); Ankasa National Park (~5°15.1'N, 2°38.4'W), ~100 m a.s.l., forest along Big Tree Trail, 23.ii.2013 (B.A. Huber), 12♂6♀ in ZFMK (Ar 10165). *Central Region*: Kakum National Park (5°20.9'N, 1°23.0'W), 160 m a.s.l., forest near entrance, day collecting, 19.-20.ii.2013 (B.A. Huber), 32♂13♀ (3 vials) in ZFMK (Ar 10166-68); same data but night collecting, 20.ii.2013 (B.A. Huber), 5♂1♀ in ZFMK (Ar 10169); same data, 2♀ in pure ethanol, in ZFMK (Gha 148). Kakum Forest [5°21.4'N, 1°23.4'W], primary forest, 16./21./23./25.xi.2005 (R. Jocqué, D. de Bakker, L. Baert), 1♂7♀ (4 vials) in MRAC (217711, 726, 735, 741); same data but secondary forest, 15./19./25.xi.2005, 1♂2♀ 1 juv. (3 vials) in MRAC (217172, 704, 731); same data but beating between primary and secondary forest, 11.xi.2005, 1♀ 1 juv. in MRAC (217275). *Eastern Region*: Atewa Hills, Atewa Atwirebu Reserve (6°13.8'N, 0°33.5'W), 740 m a.s.l., 25.ii.2013 (B.A. Huber), 15♂9♀ in ZFMK (Ar 10170); same data, 2♀ in pure ethanol, in ZFMK (Gha 134). Atewa Atwirebu Reserve (6°13.8'N, 0°32.4'W), 500 m a.s.l., degraded forest along road, 24.ii.2013 (B.A. Huber), 4♂6♀ in ZFMK (Ar 10171). *Brong Ahafo Region*: Booyem (7°40.6'N, 1°57.1'W), 470 m a.s.l., at Bibri waterfall, 4.iii.2013 (B.A. Huber), 3♂4♀ in ZFMK (Ar 10172); same data, 2♀ in pure ethanol, in ZFMK (Gha 129). Booyem (7°39.9'N, 1°57.4'W), 450 m a.s.l., at large rocks, 4.iii.2013 (B.A. Huber), 1♀ in ZFMK (Ar 10173). *Volta Region*: Agumatsa Wildlife Sanctuary, Wli waterfall (7°06.2'N, 0°36.0'E), ~300 m a.s.l., forest near waterfall, 27.ii.2013 (B.A. Huber), 1♂9♀ in ZFMK (Ar 10174). Tagbo waterfall (7°00.7'N, 0°34.4'E), ~500 m a.s.l., forest near waterfall, 28.ii.2013 (B.A. Huber), 6♂3♀ in ZFMK (Ar 10175).

TOGO: Missahohe [6°56'N, 0°36'E], 6.viii.1969 (F. Puylaert), 1♂ in MRAC (136079); same locality, 1893 (E. Baumann), 2♂ in ZMB.

Diagnosis. Distinguished from similar congeners (*S. guineensis*, *S. bineti*) by straight procursus (Figs. 40, 57), obtuse bulbal apophysis (Fig. 58), absence of median apophyses proximally on male chelicerae (Figs. 59, 64), and by strongly curved posterior margin of anterior epigynal plate (Figs. 37, 60, 73); from *S. guineensis* also by presence of ventro-distal apophysis on procursus (Fig. 57), all modified hairs on large cheliceral apophyses grouped close together (Figs. 59, 68), and by pair of humps on anterior epigynal plate (Fig. 66); from *S. bineti* also by longer legs and by absence of dark lateral marks on carapace (only dark margins; Fig. 34).

Male (Appouesso, MRAC 177664). Total body length 6.8, carapace width 1.5. Leg 1: 68.3 (15.3 + 0.7 + 15.3 + 33.9 + 3.1), tibia 2 missing, tibia 3: 7.3, tibia 4: 9.7; tibia 1 L/d: 115. Distance PME-PME 170 µm, diameter PME 160 µm, distance PME-ALE 80 µm, distance AME-AME 35 µm, diameter AME 135 µm. Carapace ochre-orange with brown triangular mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus with indistinct pair of brown lines and brown rim, sternum light ochre-brown with darker margins; legs ochre, tips of femora and tibiae whitish, dark rings subdistally on femora and tibiae and in patella area; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 34-36, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses' (Fig. 67); clypeus unmodified except evenly curved sclerotized rim; deep thoracic pit and pair of shallow furrows diverging behind pit (Fig. 65). Chelicerae as in Fig. 59, without median projections proximally, with lateral proximal apophyses, large distal apophyses provided with 3-5 modified hairs each, without distal apophyses close to fang joint. Palps as in Figs. 38-40; coxa only slightly bulged retrolaterally; trochanter with simple retrolatero-ventral apophysis; femur with retrolateral projection, with large ventral bulge distally, without ventral or prolateral modification proximally; prolateral femur-patella joint only slightly moved toward ventrally; tarsus with about 3-4 stronger hairs; procursus without hinge, straight, with two long ventral hairs bent around procursus and directed toward dorsally, distally with distinctive ventral apophysis and moveable dorsal sclerite embedded in membranous cuticle (Figs. 56-57, 70); bulb with simple obtuse apophysis arising from membranous basal projection (Fig. 58; sperm duct apparently opens at membranous basal projection at basis of apophysis; Fig. 69). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with seven spigots each (Fig. 71); gonopore with two epiandrous spigots (Fig. 72).

Variation. Number of modified hairs on male chelicerae slightly variable; color of sternum variable (ochre-orange to dark brown). Tibia 1 in 30 other males: 10.1-16.4 (mean 14.2). The type specimens are bleached but mostly in fair condition; the holotype lacks the right palp and the moveable sclerite distally on the procursus is

missing in the left palp (probably broken); the male paratype from Man lacks the right palp; the male paratype from Macenta is in poor condition, with palps and chelicerae detached and partly destroyed.

Female. In general similar to male; sternum and clypeus variably dark. Tibia 1 in 30 females: 9.5–11.5 (mean 10.6). Epigynum consisting of large anterior plate with deep posterior indentation and pair of low humps in anterior part, and large posterior plate composed of sclerotized posterior arc and pair of distinct anterior plates (Figs. 37, 53, 60, 66, 73); internal genitalia as in Fig. 62, with distinct globular structures between uterus externus and anterior epigynal plate (Fig. 61). ALS as in male (Fig. 74).

Natural history. In southern Ghana, *S. pulchra* was often among the dominant web-building spiders, both in well-preserved forests and in degraded forest fragments. In Ankasa N.P. I counted about 60 adult specimens among the buttresses of a single *Piptadeniastrum africanum* tree. The domed webs were found mainly in protected places but often also in low vegetation. Small nematocerous flies were often found hanging from the webs, sometimes in high numbers. In some places (most notably Ankasa N.P.) *Argyrodes* spiders were also found in the webs. In Kakum N.P., the spiders were observed to stick strongly to their own silk (when caught with the hand); this was not the case at other localities. When disturbed, the spiders vibrated with high amplitude and then tried to escape, but did not drop to the ground.

Distribution. Widely distributed in southern Ivory Coast, Ghana, and Togo (Fig. 33). The single record from Guinea is dubious (see Notes above).

Smeringopina bineti **(Millot, 1941)**

Figs. 2-3, 41-45, 54, 76-95

Smeringopus bineti Millot 1941: 24-27, figs. 10A–G, 10bis A-F.
Smeringopina bineti: Huber 1995: 299 (transfer to *Smeringopina*). Dimitrov, Astrin & Huber 2013 (DNA data).

Types. ♂ lectotype (designated herein) from Guinea, Dalaba [10°40.7'N, 12°15.7'W], and 1♂7♀ 5 juvs. paralectotypes from Guinea, Dalaba (3♀), Kindia [10°00.8'N, 12°48.6'W] (1♀), Grotte de Tinka [10°44.1'N, 12°16.3'W] (1♀) and Grotte de Tassacouré (locality not identified; 1♂2♀ 3 juvs), all collected by J. Millot in 1937, all together in one vial, original label: "Smeringopus bineti, Millot rec. et det., Afrique occidentale franc.", in MNHN (Ar 10490), examined.

Notes. Since the numbers of adult and juvenile specimens in the single vial agrees well with the total number of specimens studied by Millot (1941), I assume that all type specimens from all four localities were joined.

A lectotype is designated because specimens from Koumbaya and Grotte de Tassacouré differ slightly in their morphology (see below), as already noted by Millot (1941). The larger male (from Dalaba, illustrated in Millot's figure 10F) is chosen because the locality of the other male (Grotte de Tassacouré) could not be identified. The male lectotype is in bad condition (see below) but Millot's figure leaves no doubt that it is conspecific with new material collected at the type locality and at other places in Guinea.

Other material examined. GUINEA: *Moyenne-Guinée*: Dalaba (10°40.7'N, 12°15.7'W), along brook in forest, 920 m a.s.l., 21.xi.2008 (B.A. Huber), 4♂3♀ in ZFMK (Ar 10176); same data, 1♂4♀ 2 juvs. in pure ethanol, in ZFMK (Gui 108); same locality at 10°40.6'N, 12°16.0'W, 1150 m a.s.l., 21.xi.2008 (B.A. Huber), 1♂6♀ 2 juvs. in pure ethanol, in ZFMK (Gui 101); Dalaba, forest fragment at 10°41.5'N, 12°15.9'W, 1230 m a.s.l., 21.xi.2008 (B.A. Huber), 1♀ in pure ethanol, in ZFMK (Gui 116); near Dalaba, Pont de Dieu (10°41.1'N, 12°12.8'W), sheltered rock cavities, 1150 m a.s.l., 21.xi.2008 (B.A. Huber), 1♀ 7 juvs. in pure ethanol, in ZFMK (Gui 107**)**. Near Maréla (10°09.9'N, 11°30.4'W), road cut, 420 m a.s.l., 26.xi.2008 (B.A. Huber), 3♂8♀ 1 juv. in ZFMK (Ar 10177); near Maréla (10°09.8'N, 11°17.1'W), 630 m a.s.l., 4.xii.2008 (B.A. Huber); 1♂ in ZFMK (Ar 10178); same data, 1♂2♀ 2 juvs. in pure ethanol, in ZFMK (Gui 89). SE Mamou (10°17.6'N, 11°56.5'W), forest along brook, 460 m a.s.l., 4.xii.2008 (B.A. Huber), 7♂11♀ 1 juv. (2 vials) in ZFMK (Ar 10179-80); same data, 2♂2♀ in pure ethanol, in ZFMK (Gui 88**)**. Near Sêbori, in cave (10°46.6'N, 12°17.4'W), 1010 m a.s.l., 22.xi.2008 (B.A. Huber), 4♂15♀ (2 vials) in ZFMK (Ar 10181-82); same data, 3♂2♀ in pure ethanol, in ZFMK (Gui 99). Near Doucki, canyon (10°59.6'N, 12°35.3'W), 1020 m a.s.l., 24.xi.2008 (B.A. Huber), 4♂2♀ in ZFMK (Ar 10183); same data, 2♀ 4 juvs. in pure ethanol, in ZFMK (Gui 79**)**. *Basse-Guinée*: near Koumbaya (10°10.3'N, 12°53.3'W), forest, 220 m a.s.l., 19.xi.2008 (B.A. Huber), 2♂4♀ in ZFMK (Ar 10184); same data, 2♀ 1 juv. in pure ethanol, in

ZFMK (Gui 94). Near Kindia (10°00.8'N, 12°48.6'W), along brook in plantation forest, 540 m a.s.l., 5.xii.2008 (B.A. Huber), 1♀ in pure ethanol, in ZFMK (Gui 98).

Diagnosis. Distinguished from similar congeners (*S. guineensis*, *S. pulchra*) by shorter abdomen, shorter legs, and dark lateral marks on carapace (in addition to dark margin; Fig. 41); from *S. guineensis* also by presence of ventro-distal apophysis on procursus (Fig. 77), all modified hairs on large cheliceral apophyses grouped close together (Fig. 79), and low hump on anterior epigynal plate; from *S. pulchra* also by pair of median projections proximally on male chelicerae (Fig. 83), curved procursus (Figs. 45, 76-77), pointed bulbal apophysis (Fig. 78), and only weakly curved posterior margin of anterior epigynal plate (Figs. 42, 80).

Male (near Maréla). Total body length 6.0, carapace width 1.7. Leg 1: 48.9 (11.7 + 0.6 + 11.6 + 22.3 + 2.7), tibia 2: 7.8, tibia 3: 5.4, tibia 4: 7.6; tibia 1 L/d: 73. Distance PME-PME 170 µm, diameter PME 150 µm, distance PME-ALE 60 µm, distance AME-AME 45 µm, diameter AME 125 µm. Carapace ochre-orange with brown triangular mark posteriorly, brown lateral margins and indistinct lateral marks; ocular area brown, clypeus with pair of brown lines and brown rim, sternum red-brown; legs ochre, tips of femora and tibiae whitish, dark rings subdistally on femora and tibiae and in patella area; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Fig. 41, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses' (Fig. 87); clypeus unmodified except sclerotized rim, rim roughly straight; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 79, with small median projections proximally (Fig. 83), lateral proximal apophyses, large distal apophyses provided with 3-4 modified hairs each, and very small distal apophyses close to fang joint. Palps as in Figs. 43-45; coxa with prominent sclerotized rim retrolaterally; trochanter with simple retrolatero-ventral apophysis; femur with small retrolateral apophysis pointing dorso-distally, with large ventral bulge distally, without ventral or prolateral modification proximally; prolateral femur-patella joint only slightly moved toward ventrally; tarsus with about four stronger hairs; procursus without hinge, curved toward ventrally, with two long ventral hairs bent around procursus and directed toward dorsally, distally with distinctive ventral apophysis and moveable dorsal sclerite embedded in membranous cuticle (Figs. 76-77, 84-85); bulb with simple pointed apophysis with small subdistal branch, arising from membranous basal projection (Fig. 78; sperm duct apparently opens at membranous basal projection at basis of pointed apophysis). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each (Fig. 88-89); gonopore with two epiandrous spigots (Fig. 90).

Variation. Number of modified hairs on male cheliceral apophyses slightly variable, even within one specimen. Males from Koumbaya and Grotte de Tassacouré with slightly different ventral apophysis distally on procursus (basis of apophysis simply rounded rather than complex as in Fig. 77; cf. fig. 10E in Millot 1941) and with smaller moveable dorsal sclerite (Fig. 86). Tibia 1 in 19 other males: 9.1-12.6 (mean 11.3); small cheliceral apophyses near fang joints in some specimens barely visible; sternum variably dark. The type specimens are bleached but mostly in fair condition, many legs missing, palps and chelicerae missing in lectotype, right palp missing in paralectotype.

Female. In general similar to male; sternum variably dark as in males, sometimes almost black. Tibia 1 in 39 females: 8.9–10.5 (mean 9.7). Epigynum consisting of large anterior plate with low hump in median part and large posterior plate composed of sclerotized posterior arc and pair of distinct anterior plates (Fig. 42); internal genitalia as in Figs. 54 and 82, with distinct globular structures between uterus externus and anterior epigynal plate (Fig. 81). Epigynal shape apparently slightly variable (cf. figs. 10bis D-F in Millot 1941) but most of this variation is due to variable pigmentation. ALS as in male.

Natural history. *S. bineti* was found both in well preserved forests (e.g. under rocks along a stream near Dalaba) and in degraded patches (e.g. in small holes of roadcut near Maréla). It was also common in Sêbory cave, where it occupied small cavities in the cave wall. It vibrated rapidly when disturbed and was seen to build both domed and spherical webs near Koumbaya.

Distribution. Known from several localities in western Guinea (Moyenne-Guinée and Basse-Guinée, Fig. 33).

Smeringopina guineensis **(Millot, 1941)**

Figs. 4, 17, 46-52, 55, 96-113

Smeringopus guineensis Millot 1941: 22-24, figs. 9A-H.
Smeringopina guineensis: Huber 1995: 299 (transfer to *Smeringopina*). Dimitrov, Astrin & Huber 2013 (DNA data).

Types. 3♂7♀ syntypes from Guinea, Macenta [8°32.5'N, 9°28.2'W], vii.1937 (J. Millot), in MNHN (Ar 10474, 10485, 10496), examined.

Note: The vials containing the male syntypes (Ar 10496, 10485) each have the same original label saying "S. guineensis M., J. Millot rec. et. det., Macenta, Guinée fr., VII 37". The vial with the female syntypes (Ar 10485) contains two labels, one just saying "Macenta", the other "S. guineensis M., ♀, J. Millot rec. et. det., Kindia [sic!], Guinée fr., VII 37". Judging from Millot's (1941) original description, "Kindia" on the second label is clearly a lapsus.

Other material examined. GUINEA: *Guinée Forestière*: Forêt Classée de Diéké (7°32.0'N, 8°49.9'W), 430 m a.s.l., 1.xii.2008 (B.A. Huber), 7♂12♀ (2 vials) in ZFMK (Ar 10185-86); same data, 1♂2♀ 3 juvs. in pure ethanol, in ZFMK (Gui 60**)**. Forêt Classée de Ziama (8°24.2'N, 9°19.3'W), 640 m a.s.l., 2.xii.2008 (B.A. Huber), 2♂2♀ in ZFMK (Ar 10187); same data, 1♂ in ZFMK (Ar 10188); same data, 1♀ in pure ethanol, in ZFMK (Gui 71**)**. Mount Nimba (~7°41.5'N, 8°24.5'W), ~600 m a.s.l., forest, 29.xi.2008 (B.A. Huber), 1♂1♀ in ZFMK (Ar 10189); same data, 2♀ in pure ethanol, in ZFMK (Gui 76).

LIBERIA: Gbanga [Gbarnga, 7°00'N, 9°28'W], 1926 (G.M. Allen, R.P. Strong Expedition), 1♀ in MCZ (34041). Montserrado Co., Mt. Coffee [6°31.8'N, 10°33.6'W], 1896 (O.F. Cook), 1♂1♀ in USNM; same data but iii.1895, 2♂1♀ (2 vials) in USNM; same data but ii.1897, 1♀ in USNM. Grand Bassa Co. [~6°12'N, 9°48'W], "Beulah", ii.1896 (O.F. Cook), 1♂2♀ in USNM.

Diagnosis. Distinguished from similar congeners (*S. bineti*, *S. pulchra*) by absence of apophysis ventrally on procursus-tip (Fig. 97), by modified hairs on male chelicerae not all grouped at tips of apophyses (Fig. 99), by medially indented rim of male clypeus (Fig. 103), and by evenly bulged anterior epigynal plate (in lateral view); from *S. bineti* also by longer abdomen and longer legs, and by absence of dark lateral marks on carapace (only dark margin; Fig. 46); from *S. pulchra* also by pair of median apophyses proximally on male chelicerae (Figs. 103, 108), curved procursus (Figs. 52, 97), pointed bulbal apophysis (Fig. 98), and only weakly curved posterior margin of anterior epigynal plate (Figs. 49, 100). Millot (1941) mentioned further supposedly distinctive details in the abdominal pattern but these characters seem to vary too much within each species to be as useful as the structural characters.

Male (Forêt Classée de Ziama). Total body length 6.3, carapace width 1.6. Leg 1: 68.6 (15.7 + 0.7 + 15.6 + 33.7 + 2.9), tibia 2: 10.8, tibia 3: 7.2, tibia 4: 9.9; tibia 1 L/d: 104. Distance PME-PME 185 µm, diameter PME 150 µm, distance PME-ALE 70 µm, distance AME-AME 25 µm, diameter AME 150 µm. Carapace ochre-orange with brown triangular mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus with pair of brown lines and brown rim, sternum light brown; legs ochre, tips of femora and tibiae whitish, dark rings subdistally on femora and tibiae and in patella area; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 46-48, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus unmodified except sclerotized rim, rim clearly indented medially (Fig. 103); deep thoracic pit and pair of shallow furrows diverging behind pit (Fig. 104). Chelicerae as in Fig. 99, with distinct median projections proximally, lateral proximal apophyses, large distal apophyses provided each with two modified hairs at tip and about six further hairs more proximally, with very small distal apophyses close to fang joint carrying single hair each at their tips (Fig. 111). Palps as in Figs. 50-52; coxa with rounded retrolateral hump; trochanter with simple retrolatero-ventral apophysis; femur with small retrolateral apophysis pointing dorso-distally, with large ventral bulge distally, without ventral or prolateral modification proximally; prolateral femur-patella joint only slightly moved toward ventrally; tarsus with about three or four stronger hairs; procursus without hinge, curved toward ventrally, with four long ventral hairs bent around procursus and directed toward dorsally, distally with moveable dorsal sclerite embedded in membranous cuticle, without ventral apophysis (Figs. 96-97); bulb with simple pointed apophysis with very small subdistal branch, arising from membranous basal projection (Fig. 98; sperm duct apparently opens at membranous basal projection at basis of pointed apophysis). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each; gonopore with two epiandrous spigots (Fig. 110).

Variation. Number of modified hairs on male chelicerae slightly variable. Tibia 1 in 11 other males: 12.8-16.3 (mean 14.1). Male syntypes in fair condition, slightly bleached, some legs detached or missing, one pair of chelicerae and one palp missing.

Female. In general similar to male; sternum variably dark, sometimes almost black. Tibia 1 in 24 females: 9.6–

12.4 (mean 10.7). Epigynum as in Figs. 49 and 100, similar *S. bineti* but anterior plate without hump (evenly curved in lateral view); internal genitalia as in Figs. 55 and 102, with distinct globular structures between uterus externus and anterior epigynal plate more closely grouped together than in *S. bineti* (Fig. 101). ALS with eight spigots each (Fig. 112). Female syntypes in fair condition, slightly bleached, two abdomens and some legs missing.

Natural history. In Diéké and Ziama forests, *S. guineensis* built strongly domed webs (Fig. 17) between tree buttresses, among rocks and sometimes quite freely among the vegetation (especially juveniles). When disturbed it vibrated and/or ran away on the web.

Distribution. Known from several localities in southeastern Guinea (Guinée Forestière) and Liberia (Fig. 33).

lekoni group

Smeringopina kinguele new species

Figs. 25, 115-119, 163, 173, 184-189, 240-245

Type. ♂ holotype from Gabon, Estuaire, Monts de Cristal, between Tchimbélé and Kinguélé (0°33.8'N, 10°18.8'E), 520 m a.s.l., forest near river, 10.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10190).

Other material examined. GABON: *Estuaire*: Monts de Cristal, between Tchimbélé and Kinguélé, same data as holotype, 2♂8♀ 3 juvs. in ZFMK (Ar 10191); same data, 1♀ 1 juv. in pure ethanol, in ZFMK (Gab 193**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Smallest known *Smeringopina* species (body length about 2.4 mm), easily distinguished from congeners by S-shaped procursus with fringed membranous processes ventrally (Figs. 184-185), distinctive modification of clypeus (pair of slender, weakly sclerotized processes at rim), and by shape of epigynum (wide and short anterior plate, very large posterior plate; Figs. 163, 188).

Male (holotype). Total body length 2.4, carapace width 0.85. Leg 1: 17.1 (4.1 + 0.3 + 4.2 + 7.2 + 1.3), tibia 2: 2.5, tibia 3: 1.8, tibia 4: 3.0; tibia 1 L/d: 68. Distance PME-PME 95 µm, diameter PME 80 µm, distance PME-ALE 35 µm, distance AME-AME 35 µm, diameter AME 45 µm. Carapace ochre-yellow with brown posterior mark connected with brown mark posteriorly on ocular area, brown lateral margins; clypeus with light brown pattern, sternum dark brown; legs light brown, with small black marks (especially proximally on femora), tips of femora and tibiae whitish, no darker rings; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands without lateral constriction. Habitus as in Figs. 115-116, ocular area slightly elevated, secondary eyes with very indistinct 'pseudo-lenses'; clypeus with pair of slender, weakly sclerotized processes at rim; shallow thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 186, with lateral apophyses in very distal position, with small frontal apophyses near tips of clypeus projections, without modified hairs. Palps as in Figs. 117-119; coxa unmodified; trochanter with strong ventral apophysis with sclerotized cones distally (Fig. 242); femur with large retrolateral apophysis directed toward ventrally, without prolateral modification, with low weakly sclerotized ventral hump distally; prolateral femur-patella joint only slightly shifted toward ventrally; tarsus with some longer and slightly stronger hairs dorsally; procursus as in Figs. 184-185, S-shaped with fringed membranous processes ventrally, without hinge; bulb with slender sclerotized process arising from weakly sclerotized protrusion (sperm duct opens at basis of slender process; Figs. 187, 243). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 2%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with seven spigots each; gonopore with two epiandrous spigots (Fig. 240).

Variation. Tibia 1 in 2 other males: 4.7, 4.9.

Female. In general similar to male; clypeus unmodified. Tibia 1 in 8 females: 3.2-3.7 (mean 3.5). Epigynum anterior plate wide and short, with pair of indistinct small pockets about 300 µm apart (Figs. 163, 188, 245); posterior plate relatively large, weakly curved; internal genitalia as in Figs. 173, 189, and 241. ALS with seven spigots each (Fig. 244).

Natural history. Collected under dead leaves on the ground in a well preserved very humid forest near a river.

Distribution. Known from type locality only (Fig. 114).

Smeringopina mohoba new species
Figs. 120-124, 164, 174, 190-196

Type. ♂ holotype from Gabon, Ogooué-Ivindo, near Mohoba Mozeye (0°16.8'N, 13°20.9'E), 510 m a.s.l., forest along road, 17.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10192).

Other material examined. GABON: *Ogooué-Ivindo*: near Mohoba Mozeye, same data as holotype, 1♀ together with holotype; same data, 1♀ 2 juvs. in pure ethanol, in ZFMK (Gab 167).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from congeners by distinctive process of clypeus (cylindrical, weakly sclerotized; Fig. 190) and frontal apophyses on male chelicerae (Figs. 194; similar *S. lekoni* but much shorter), by sclerotized bulbal process (Fig. 193) and by oval anterior epigynal plate with pair of round, heavily sclerotized areas (Figs. 164, 195).

Male (holotype). Total body length 2.9, carapace width 1.0. Leg 1: 23.8 (5.7 + 0.4 + 5.9 + 10.3 + 1.5), tibia 2: 3.7, tibia 3: 2.5, tibia 4: 4.0; tibia 1 L/d: 67. Distance PME-PME 90 µm, diameter PME 105 µm, distance PME-ALE 45 µm, distance AME-AME 25 µm, diameter AME 80 µm. Carapace ochre-yellow with brown triangular mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus with indistinct brown pattern, sternum dark brown; legs light brown, femora with indistinct darker rings subdistally, tibiae with indistinct darker rings proximally and subdistally; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands with lateral constriction. Habitus as in Figs. 120-121, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus with cylindrical, weakly sclerotized process near rim (Fig. 190); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 194, with lateral apophyses in very distal position, with distinctive, strongly ridged frontal apophyses, without modified hairs. Palps as in Figs. 122-124; coxa with retrolateral apophysis; trochanter with strong but simply rounded ventral apophysis; femur with large retrolateral apophysis directed toward ventrally, with small apophysis at prolateral trochanter-femur joint, without slender ventral projection distally; prolateral femur-patella joint strongly shifted toward ventrally (hidden by bulb in Fig. 122); tarsus with some longer and slightly stronger hairs dorsally; procursus as in Figs. 191-192, with complex membranous and sclerotized structures ventrally, without hinge; bulb with distinctive sclerotized process (Fig. 193; sperm duct opening not seen). Legs without spines and curved hairs, with few vertical hairs (many hairs missing); retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Female. In general similar to male; clypeus unmodified. Tibia 1: 4.0. Epigynum anterior plate oval with pair of round, heavily sclerotized areas (Fig. 164, 195); posterior plate laterally with overhanging folds; internal genitalia as in Figs. 174 and 196.

Natural history. Litter-dwelling species.

Distribution. Known from type locality only (Fig. 114).

Smeringopina fang new species
Figs. 29-30, 125-132, 165-166, 175-176, 197-224

Type. ♂ holotype from Gabon, Ogooué-Ivindo, near Djidji (0°12.8'N, 11°49.3'E), 470 m a.s.l., forest, 12.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10193).

Other material examined. GABON: *Ogooué-Ivindo*: near Djidji, same data as holotype, 6♂7♀ 1 juv. (2 vials) in ZFMK (Ar 10194-95); same data, 1♂1♀ 2 juvs. in pure ethanol, in ZFMK (Gab 239). Monts de Belinga, forest near Mayebout (1°06.7'N, 13°06.6'E), 500 m a.s.l., 13.-14.viii.2011 (B.A. & S.R. Huber), 3♂14♀ 1 juv. in ZFMK (Ar 10196); same data, 5♀ 1 juv. in pure ethanol, in ZFMK (Gab 197). Near Ntenkélé (0°31.4'N, 12°31.5'E), 550 m a.s.l., forest, 12.viii.2011 (B.A. & S.R. Huber), 2♀ in ZFMK (Ar 10197); same data, 1♀ 1 juv. in pure ethanol, in ZFMK (Gab 236). Makokou, CNRS [0°30.8'N, 12°48.2'E; not 0°04'N, 12°08'E as on label], ix.-xi.1976 (A.L. Rypstra), 8♂18♀ 4 juvs. in USNM. *Moyen-Ogooué*: near Ndjolé, "site 1" (0°09.0'S, 10°40.0'E), 120 m a.s.l., forest near brook, 11.viii.2011 (B.A. & S.R. Huber), 6♂3♀ 2 juvs. in ZFMK (Ar 10198); same data, 2♀ 1 juv. in pure ethanol, in ZFMK (Gab 230). *Ngounié*: Massif du Chaillu, "site 2", near Moukabou (1°36.6'S, 11°40.7'E), 560 m a.s.l., forest, 25.viii.2011 (B.A. & S.R. Huber), 3♂2♀ in ZFMK (Ar 10199); same data, 1♀ 1 juv. in pure

ethanol, in ZFMK (Gab 175**)**. Massif du Chaillu, "site 3", between Mimongo & Yéno (1°38.1'S, 11°32.6'E), 570-650 m a.s.l., forest, 26.viii.2011 (B.A. & S.R. Huber), 2♂6♀ in ZFMK (Ar 10200); same data, 1 juv. in pure ethanol, in ZFMK (Gab 235**)**.

Etymology. Named for the Fang, an ethnic group ranging from southern Cameroon south into Gabon and Congo; noun in apposition.

Diagnosis. Easily distinguished from known congeners by distinctive long and slender process of bulb (Fig. 199) and by highly distinctive pair of processes on epigynum (Figs. 206, 221); also by pair of large sclerotized areas medially on male chelicerae (Fig. 205; sometimes indistinct) and small retrolateral apophysis on male palpal femur directed toward dorsally (Fig. 129).

Male (holotype). Total body length 3.2, carapace width 1.1. Leg 1: 34.3 (8.1 + 0.4 + 8.3 + 15.8 + 1.7), tibia 2: 4.8, tibia 3: 3.3, tibia 4: 5.1; tibia 1 L/d: 94. Distance PME-PME 95 µm, diameter PME 115 µm, distance PME-ALE 55 µm, distance AME-AME 25 µm, diameter AME 90 µm. Carapace ochre-yellow with brown triangular mark posteriorly and brown lateral margins; ocular area with brown mark posteriorly; clypeus with pair of brown bands, sternum brown; legs light brown, with indistinct darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands with lateral constriction. Habitus as in Figs. 125-126, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus with pointed and slightly hooked apophysis near rim (Figs. 211, 213-214); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 205 and 213-215, with lateral apophyses in very distal position, with distinctive pair of large sclerotized areas medially, with rows of small frontal apophyses, without modified hairs. Palps as in Figs. 127-129; coxa with indistinct retrolateral apophysis; trochanter with simple ventral apophysis; femur with large retrolateral apophysis directed toward ventrally, small retrolateral apophysis directed toward dorsally, small proximal prolateral process, and weakly sclerotized ventral projection distally; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some longer and slightly stronger hairs dorsally (Fig. 216; procursus with large distal apophysis and complex membranous prolatero-ventral structures, without hinge (Figs. 197-198); bulb with long slender process (sperm duct opens at basis of this process from weakly sclerotized bulge; Figs. 199, 218). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each; male gonopore with two epiandrous spigots (Fig. 219).

Variation. There is conspicuous variation among localities and the species may eventually turn out to include several reproductively isolated communities. They are here treated as one species because different characters suggest different groupings and some characters seem to vary continuously and are difficult to evaluate given the small sample of localities and specimens. The distal procursus apophysis may be short and thick (Ndjolé; Figs. 200-201), short and bifid (Massif du Chaillu; Figs. 203-204), or just much shorter than in the holotype (Mayebout, Makokou); the membranous structures prolatero-ventrally on the procursus seem to differ among localities but are difficult to evaluate; the same is true for the slender process of the bulb that may be variably curved (Figs. 199, 202). Tibia 1 in 23 other males: 7.7-9.2 (mean 8.3).

Female. In general similar to male; clypeus unmodified. Tibia 1 in 44 females: 4.8-5.8 (mean 5.2). Epigynum anterior plate with pair of distinctive projections (Figs. 206, 221) whose shape and positions varies among localities (more rounded than in specimens from type locality in specimens from Massif du Chaillu, Ntenkélé, Ndjolé: Fig. 209; closer together in females from Ntenkélé); entire anterior plate sometimes relatively narrower (Mayebout, Makokou, Ntenkélé); posterior indentation sometimes much deeper (Massif du Chaillu, Makokou, Ndjolé: Fig. 209, Mayebout: Figs. 222, 224); with rugose area in anterior part of anterior epigynal plate; posterior plate laterally with overhanging folds; internal genitalia as in Figs. 175-176, 207, 210.

Natural history. Litter-dwelling species with small domed webs under dead curved leaves on the ground. At "site 1" near Ndjolé this species was found to share the leaf-litter with the superficially very similar *S. ndjole*.

Distribution. Widely distributed in Gabon (Fig. 114).

Smeringopina tebe new species
Figs. 26, 133-137, 167, 177, 225-239

Type. ♂ holotype from Gabon, Ogooué-Ivindo, N Tébé (0°02.3'S, 13°40.9'E), 550 m a.s.l., forest along brook, 17.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10201).

Other material examined. GABON: *Ogooué-Ivindo*: N Tébé, same data as holotype, 8♂3♀ 1 juv. in ZFMK (Ar 10202); same data, 2♀ 1 juv. in pure ethanol, in ZFMK (Gab 164).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from congeners by highly distinctive frontal apophyses on male chelicerae (Figs. 228-229, 232) and by pair of (probably functionally corresponding) deep pockets in anterior epigynal plate (Fig. 230).

Male (holotype). Total body length 3.8, carapace width 1.2. Leg 1: 38.1 (8.8 + 0.4 + 9.1 + 18.0 + 1.8), tibia 2: 5.5, tibia 3: 3.8, tibia 4: 5.7; tibia 1 L/d: 89. Distance PME-PME 125 µm, diameter PME 115 µm, distance PME-ALE 60 µm, distance AME-AME 25 µm, diameter AME 95 µm. Carapace ochre-yellow with brown triangular mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus and sternum brown; legs light brown, femora with dark rings subdistally, tibiae with dark rings proximally and subdistally; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands with lateral constriction. Habitus as in Figs. 133-134, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus with pointed and slightly hooked apophysis between AME and rim; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 228-229, with lateral apophyses in very distal position, with distinctive frontal apophyses consisting of anterior lobe with granulate surface and posterior lobe with smooth surface (Figs. 232-233), without modified hairs. Palps as in Figs. 135-137; coxa with distinct retrolateral apophysis; trochanter barely modified; femur with large retrolateral apophysis directed toward ventrally, with sclerotized hump at prolateral joint to trochanter, with weakly sclerotized ventral projection distally; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some longer and slightly stronger hairs dorsally, tarsal organ capsulate and on short stalk (Fig. 235); procursus as in Figs. 225-226, with complex membranous and sclerotized structures ventrally (Figs. 234, 236), without hinge; bulb with simple weakly sclerotized process (Fig. 227; sperm duct apparently opens at basis of this process). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 2%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each (Fig. 237); gonopore with two epiandrous spigots (Fig. 238).

Variation. Some males with indistinct additional (third) wide darker ring on tibiae. Tibia 1 in 8 other males: 8.0-9.3 (mean: 8.7).

Female. In general similar to male; clypeus unmodified. Tibia 1 in three females: 6.0, 6.3, 6.3. Epigynum anterior plate triangular with pair of deep pockets (Figs. 167, 230); posterior plate laterally with overhanging folds; internal genitalia as in Figs. 177, 231, 239.

Natural history. Litter-dwelling species, very common in humid litter near a brook at the type locality.

Distribution. Known from type locality only (Fig. 114).

Smeringopina lekoni new species
Figs. 27, 138-142, 168, 178, 246-252

Type. ♂ holotype from Gabon, Haut Ogooué, forest at Lékoni River (1°10.7'S, 13°32.3'E), 305 m a.s.l., 18.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10203).

Other material examined. GABON: *Haut Ogooué*: forest at Lékoni River, same data as holotype, 2♂5♀ in ZFMK (Ar 10204); same data, 1♀ 3 juvs. in pure ethanol, in ZFMK (Gab 214).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from congeners by distinctive modification of clypeus (long median apophysis projecting downwards from rim; Fig. 246) and frontal apophyses on male chelicerae (Fig. 250; similar *S. mohoba* but much longer) and by triangular anterior epigynal plate with cone-shaped median process (Figs. 168, 251).

Male (holotype). Total body length 3.7, carapace width 1.3. Leg 1: 42.4 (10.0 + 0.4 + 10.0 + 20.0 + 2.0), tibia 2: 6.2, tibia 3: 4.2, tibia 4: 6.4; tibia 1 L/d: 98. Distance PME-PME 135 µm, diameter PME 125 µm, distance PME-

ALE 60 µm, distance AME-AME 45 µm, diameter AME 100 µm. Carapace ochre-yellow with brown triangular mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus with brown pattern, sternum dark brown; legs light brown, femora with dark rings subdistally, tibiae with dark rings proximally and subdistally and additional indistinct ring medially; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands with lateral constriction. Habitus as in Figs. 138-139, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus with long median apophysis projecting downwards from rim (Fig. 246); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 250, with lateral apophyses in very distal position, with distinctive, strongly ridged frontal apophyses, without modified hairs. Palps as in Figs. 140-142; coxa with retrolateral apophysis; trochanter with strong but simple ventral apophysis; femur with large retrolateral apophysis directed toward ventrally, proximally accompanied by two sclerotized humps, without prolateral modification, with weakly sclerotized slender ventral projection distally; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some longer and slightly stronger hairs dorsally; procursus as in Figs. 247-248, with complex membranous and sclerotized structures ventrally, without hinge; bulb with simple weakly sclerotized process (Fig. 249; sperm duct apparently opens at basis of this process). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 2%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in 2 other males: 8.5, 9.5.

Female. In general similar to male; clypeus unmodified. Tibia 1 in 5 females: 6.1-6.9 (mean 6.7). Epigynum anterior plate triangular with cone-shaped median process flanked by pair of shallow depressions (Figs. 168, 251); posterior plate laterally with overhanging folds (Fig. 251); internal genitalia as in Figs. 178 and 252.

Natural history. Litter-dwelling species that shares the microhabitat at type locality with a superficially similar *Pholcus* species (*Pholcus* cf. *moca* Huber, 2011).

Distribution. Known from type locality only (Fig. 114).

Smeringopina iboga **new species**

Figs. 143-146, 169, 179, 253-258

Type. ♂ holotype from Gabon, Ngounié, near Moulandoufouala (1°38.1'S, 10°42.5'E), 110 m a.s.l., forest along road, 27.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10205).

Other material examined. GABON: *Ngounié*: near Moulandoufouala, same data as holotype, 4♀ together with holotype; same data, 2♀ in pure ethanol, in ZFMK (Gab 188**)**.

Etymology. The name is a noun in apposition, derived from the iboga tree (*Tabernanthe iboga*) native to western Central Africa, a hallucinogen whose bark of the root is chewed for pharmacological or ritualistic purposes.

Diagnosis. Distinguished from known congeners by distinctive shape of procursus (very wide in lateral view, Figs. 253-254); females are difficult to distinguish from similar species with distinct anterior ridge of epigynum (Figs 169, 257; cf. *S. moudouma*, *S. ndjole*).

Male (holotype). Total body length 3.7, carapace width 1.3. Leg 1: 36.9 (8.6 + 0.5 + 8.9 + 17.0 + 1.9), tibia 2: 5.7, tibia 3: 4.1, tibia 4: 5.7; tibia 1 L/d: 84. Distance PME-PME 135 µm, diameter PME 125 µm, distance PME-ALE 55 µm, distance AME-AME 25 µm, diameter AME 125 µm. Carapace ochre-yellow with brown triangular mark posteriorly and brown lateral margins; ocular area with brown mark posteriorly; clypeus and sternum brown; legs light brown, femora with two dark rings, tibiae with four dark rings; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands with lateral constriction. Habitus as in Fig. 146, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus with pointed and slightly hooked apophysis near rim; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 255, with lateral apophyses in very distal position, pair of rows of small frontal apophyses, without modified hairs. Palps as in Figs. 143-145; coxa with indistinct retrolateral apophysis; trochanter with large, heavily sclerotized ventral apophysis with obtuse tip; femur with large retrolateral apophysis directed toward ventrally, proximal prolateral ridge, and weakly sclerotized ventral projection distally; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some longer and slightly stronger hairs dorsally; procursus very wide in lateral view, with complex membranous prolatero-ventral structures, without hinge (Figs. 253-254); bulb with simple process

(Fig. 256; sperm duct apparently opens at basis of this process). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Female. In general similar to male; clypeus unmodified. Tibia 1 in 4 females: 6.6, 6.7, 6.7, 7.4. Epigynum anterior plate with distinct anterior ridge (Figs. 169, 257); posterior plate laterally with overhanging folds; internal genitalia as in Figs. 179 and 258.

Natural history. Litter-dwelling species.

Distribution. Known from type locality only (Fig. 114).

Smeringopina moudouma new species

Figs. 28, 147-152, 170, 180-181, 259-280

Type. ♂ holotype from Gabon, Ogooué-Lolo, near Moudouma (1°23.5'S, 12°09.6'E), 475 m a.s.l., forest along brook, 24.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10206).

Other material examined. GABON: *Ogooué-Lolo*: near Moudouma, same data as holotype, 3♂6♀ 3 juvs. (2 vials) in ZFMK (Ar 10207-08); same data, 2♀ 3 juvs. in pure ethanol, in ZFMK (Gab 158**)**. Near Lastoursville, forest at brook near Grotte de Pahon Pira (0°48.8'S, 12°45.2'E), 290 m a.s.l., 22.-23.viii.2011 (B.A. Huber), 5♂8♀ 1 juv. (2 vials) in ZFMK (Ar 10209-10). Near Lastoursville, at Grotte de Pahon Pira (0°48.8'S, 12°45.1'E), 360 m a.s.l., outside cave near entrance, 22.viii.2011 (B.A. & S.R. Huber), 1♂5♀ in ZFMK (Ar 10211); same data, 2♀ 2 juvs. in pure ethanol, in ZFMK (Gab 161**)**. Near Lastoursville (0°48.0'S, 12°44.4'E), forest north of Ogooué River, 300 m a.s.l., 21.viii.2011 (B.A. Huber), 3♂2♀ in ZFMK (Ar 10212). Massif du Chaillu, "site 1", near Iboundji (1°26.4'S, 11°58.4'E), 515 m a.s.l., forest along brook, 25.viii.2011 (B.A. & S.R. Huber), 1♂6♀ in ZFMK (Ar 10213); same data, 2 juvs. in pure ethanol, in ZFMK (Gab 177**)**. *Ngounié*: Massif du Chaillu, "site 4", between Yéno and Mouila (1°43.7'S, 11°18.4'E), 650 m a.s.l., forest along river, 26.viii.2011 (B.A. & S.R. Huber), 2♀ in ZFMK (Ar 10214); same data, 1 juv. in pure ethanol, in ZFMK (Gab 172).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (*lekoni* group) by the combination of the following characters: male palpal trochanter-apophysis heavily sclerotized and ventrally serrated (similar to *S. ndjole*, *S. kikongo*); epigynum with distinct anterior ridge (Figs. 170, 267, 269; similar to *S. iboga*, *S. ndjole*, *S. kikongo*); male chelicerae without pair of large frontal apophyses (Fig. 261; in contrast to *S. kikongo*); epigynum with short anterior projection (Figs. 267, 269; in contrast to *S. kikongo*); procursus without serrated hairs at tip and without strong ventral spine (Figs. 259-260; in contrast to *S. ndjole*).

Male (holotype). Total body length 4.5, carapace width 1.4. Leg 1: 46.7 (11.0 + 0.5 + 11.2 + 22.0 + 2.0), tibia 2: 7.1, tibia 3: 5.0, tibia 4: 7.1; tibia 1 L/d: 97. Distance PME-PME 125 µm, diameter PME 140 µm, distance PME-ALE 45 µm, distance AME-AME 45 µm, diameter AME 125 µm. Carapace ochre-yellow with brown triangular mark posteriorly and brown lateral margins; ocular area, clypeus and sternum brown; legs light brown, femora with two dark rings (medially, subdistally), tibiae with four dark rings (proximally, subdistally, and two in-between); abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands with lateral constriction. Habitus as in Figs. 147-149, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus with small and slightly hooked apophysis near rim (Fig. 271); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 261, with lateral apophyses in very distal position, pair of rows of small frontal apophyses, without modified hairs. Palps as in Figs. 150-152; coxa with indistinct retrolateral apophysis; trochanter with large, heavily sclerotized ventral apophysis serrated ventrally; femur with large retrolateral apophysis directed toward ventrally, proximal prolateral projection, and weakly sclerotized ventral projection distally; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some longer but barely stronger hairs dorsally; procursus as in Figs. 259-260, with complex membranous and sclerotized structures prolatero-ventrally (Figs. 273, 276), without hinge; bulb with simple process (Figs. 262, 274; sperm duct apparently opens at basis of this process). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each; gonopore with two epiandrous spigots (Fig. 277).

Variation. There is conspicuous variation among localities and the species may eventually turn out to include several reproductively isolated communities. Males from the Massif du Chaillu have slightly less complex sclerotized structures prolatero-ventrally on the procursus (Figs. 265-266) and frontally unmodified chelicerae; males from near Lastoursville *south* of the Ogooué River (Grotte de Pahon Pira and surrounding area) are very similar to those from the type locality (large ventral element on procursus darker and more pointed) while males from near Lastoursville *north* of the Ogooué River rather resemble those from the Massif du Chaillu (Figs. 263-264). Given the small sample of localities and specimens, these specimens are tentatively treated as one species pending further collecting and analysis. Tibia 1 in 12 other males (all localities combined): 8.5-11.5 (mean 9.9).

Female. In general similar to male; clypeus unmodified. Tibia 1 in 26 females: 6.5-8.8 (mean 7.5). Epigynum anterior plate with distinct anterior ridge (Fig. 170, 180, 267), with variably distinct shallow humps and depressions, females from Massif du Chaillu near Iboundji slightly different (Figs. 181, 269; females from between Yéno and Mouila again slightly different: pair of dark spots on epigynum smaller and wider apart; frontal pair of dark bands absent); posterior plate laterally with overhanging folds; internal genitalia as in Figs. 180, 181, 268, 270. Spinnerets as in male (Figs. 278-279).

Natural history. Litter-dwelling species. At Pahon Pira cave, this species was only found outside the cave.

Distribution. Known from several localities in Gabon (Fig. 114).

Smeringopina ndjole new species

Figs. 153-157, 171, 182, 281-286

Type. ♂ holotype from Gabon, Moyen-Ogooué, near Ndjolé, "site 1" (0°09.0'S, 10°40.0'E), 120 m a.s.l., forest near brook, 11.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10215).

Other material examined. GABON: *Moyen-Ogooué*: near Ndjolé, same data as holotype, 1♀, prosoma in pure ethanol, in ZFMK (Gab 231), abdomen together with male holotype.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners with anterior epigynal ridge and heavily sclerotized and serrated male palpal trochanter (*S. moudouma*, *S. kikongo*) by distinctive ventral spine on procursus and serrated hairs distally on procursus (Figs. 281-282); from *S. kikongo* also by absence of large frontal apophyses on male chelicerae (Fig. 283) and epigynum with short anterior projection (Fig. 285); from *S. moudouma* also by epigynum with large dark shallow depressions bordered medially by ridges leading to anterior epigynal ridge (Fig. 285).

Male (holotype). Total body length 4.9, carapace width 1.5. Leg 1: 49.8 (11.8 + 0.5 + 11.6 + 23.8 + 2.1), tibia 2: 7.4, tibia 3: 5.2, tibia 4: 7.4; tibia 1 L/d: 101. Distance PME-PME 135 µm, diameter PME 135 µm, distance PME-ALE 70 µm, distance AME-AME 45 µm, diameter AME 115 µm. Carapace ochre-yellow with brown triangular mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus and sternum brown; legs light brown, femora with two dark rings (medially, subdistally), tibiae with four dark rings (proximally, subdistally, and two in-between); abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands with lateral constriction. Habitus as in Figs. 153-154, ocular area slightly elevated, secondary eyes with very indistinct 'pseudo-lenses'; clypeus with pointed and slightly hooked apophysis near rim; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 283, with lateral apophyses in very distal position, without frontal modification, without modified hairs. Palps as in Figs. 155-157; coxa with wide rounded retrolateral apophysis; trochanter with large, heavily sclerotized ventral apophysis serrated ventrally; femur with large retrolateral apophysis directed toward ventrally, without prolateral modification, with weakly sclerotized ventral projection distally; prolateral femur-patella joint only slightly shifted toward ventrally; tarsus with some longer but barely stronger hairs dorsally; procursus as in Figs. 281-282, with complex membranous and sclerotized structures prolatero-ventrally, with distinctive ventral spine, without hinge; bulb with simple process (Fig. 284; sperm duct apparently opens at basis of this process). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Female. In general similar to male; clypeus unmodified. Tibia 1: 8.1. Epigynum anterior plate with distinct anterior ridge (Figs. 171, 285), with large dark shallow depressions bordered medially by ridges leading to anterior epigynal ridge; posterior plate laterally with overhanging folds; internal genitalia as in Figs. 182 and 286.

Natural history. Litter-dwelling species that shares the leaf-litter at the type locality with the widespread and superficially very similar *S. fang*.

Distribution. Known from type locality only (Fig. 114).

Smeringopina kikongo new species

Figs. 158-162, 172, 183, 287-292

Type. ♂ holotype from Congo D.R., Bas Congo Province, Luki Forest Reserve (5°37.3'S, 13°05.9'E), central zone, by hand, 26.-27.ix.2007 (W. Hubau), in MRAC (222155 part).

Other material examined. CONGO D.R.: *Bas Congo*: Luki Forest Reserve, fogging in primary forest, 10.xi.2006 and 27.ix.2007 (D. de Bakker, J.P. Michiels), 2♀ (2 vials) in MRAC (219853 part, 224313 part); same locality, hand catch in secondary rainforest, 2.xi.2006 (D. de Bakker, J.P. Michiels), 1♀ in MRAC (219933); same locality, sieving along trail in primary rainforest, 20./28.ix.2007 (D. de Bakker, J.P. Michiels), 2♀ (2 vials) in MRAC (223052, 223409); same locality, beating, 25.ix.-2.x.2007 (D. de Bakker, J.P. Michiels), 4♀ 2 juvs. (5 vials) in MRAC (223096 part, 223605 part, 223623, 223806 part, 223842 part); same locality, pitfall trap in primary rainforest, 3.-14.xi.2006 (D. de Bakker, J.P. Michiels), 1 juv. in MRAC (219921).

Etymology. The name is derived from Kikongo, the Bantu language spoken by the Bakongo and Bandundu people living in the tropical forests of the western Congo D.R. and neighboring countries; noun in apposition.

Diagnosis. Easily distinguished from congeners by distinctive frontal apophyses on male chelicerae (directed sideways; Fig. 289), and by anterior epigynal plate with long anterior prolongation ending in distinct ridge (Figs. 172, 291).

Male (holotype). Total body length 4.0, carapace width 1.2. Leg 1: 38.5 (9.0 + 0.4 + 9.1 + 18.5 + 1.5), tibia 2: 5.5, tibia 3: 3.7, tibia 4: 5.6; tibia 1 L/d: 89. Distance PME-PME 150 µm, diameter PME 115 µm, distance PME-ALE 45 µm, distance AME-AME 25 µm, diameter AME 105 µm. Carapace ochre-yellow with brown mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus with brown pattern, sternum dark brown; legs light brown, with dark rings on femora (subdistally), tibiae (proximally, subdistally and additional ring in-between), and metatarsus (proximally); abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally, ventral dark bands with lateral constriction. Habitus as in Figs. 158-159, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus with sclerotized apophysis (pointed in lateral view) between AME and rim; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 289, with lateral apophyses in very distal position, with distinctive frontal apophyses directed sideways and pair of rows of small apophyses/ridges medially, without modified hairs. Palps as in Figs. 160-162; coxa with retrolateral process; trochanter with strong ventral apophysis serrated ventrally; femur with large retrolateral apophysis directed toward ventrally and accompanied by proximal sclerotized hump, with sclerotized projection at prolateral trochanter-femur joint, with weakly sclerotized ventral projection distally; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some longer and slightly stronger hairs dorsally; procursus as in Figs. 287-288, with complex membranous and sclerotized structures ventrally, without hinge; bulb with simple weakly sclerotized process (Fig. 290; sperm duct opening apparently at basis of this process). Legs without spines and curved hairs, with few vertical hairs (many hairs missing); retrolateral and prolateral trichobothria on tibia 1 not seen; pseudosegments barely visible.

Female. In general similar to male; clypeus unmodified. Tibia 1 in 7 females: 7.3-9.0 (mean 8.3). Epigynum anterior plate with long anterior prolongation ending in distinct ridge, with pair of round internal structures visible through cuticle (Figs. 172, 291); posterior plate laterally with overhanging folds; internal genitalia as in Figs. 183 and 292.

Distribution. Known from type locality only (Fig. 114).

attuleh group

Smeringopina attuleh new species
Figs. 24, 294-298, 304-306, 318-323

Smeringopina Cam40: Dimitrov, Astrin & Huber 2013 (DNA data).

Type. ♂ holotype from Cameroon, Southwest Region, near Dschang, Attuleh, "site 1" (5°27.7'N, 9°56.5'E), 1880 m a.s.l., near ground, 20.iv.2009 (B.A. Huber), in ZFMK (Ar 10216).

Other material examined. CAMEROON: *Southwest Region*: near Dschang, Attuleh, "site 1", same data as holotype, 3♂2♀ in ZFMK (Ar 10217); same data, 1♀ 4 juvs. in pure ethanol, in ZFMK (Cam 126); Attuleh, "site 2" (5°27.9'N, 9°56.5'E), 1800 m a.s.l., near ground, 20.iv.2009 (B.A. & J.C. Huber), 4♀ in ZFMK (Ar 10218); same data, 3♀ in pure ethanol, in ZFMK (Cam 122**)**. Near Dschang, Essotah (5°25.5'N, 9°54.7'E), 1600 m a.s.l., near ground, 21.iv.2009 (B.A. Huber), 2♂1♀ (2 vials) in ZFMK (Ar 10219-20); same data, 2♀ 3 juvs. in pure ethanol, in ZFMK (Cam 96).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from most congeners by distinctive male cheliceral armature (very densely packed modified hairs on distinctively shaped apophyses; Fig. 320) and procursus with posterior indentation occupied by complex membranous structures (Fig. 319); from the very similar *S. mbouda* by shorter male cheliceral apophyses (Fig. 320), simple embolus (Fig. 321), dorso-distal process on procursus (Fig. 319), and anterior epigynal plate with distinct median process (in lateral view; Fig. 305) and more angular posterior edges (in ventral view; Fig. 322).

Male (holotype). Total body length 4.6, carapace width 1.5. Leg 1: 33.7 (8.1 + 0.5 + 8.1 + 14.9 + 2.1), tibia 2: 5.2, tibia 3: 3.8, tibia 4: 6.0; tibia 1 L/d: 55. Distance PME-PME 135 µm, diameter PME 140 µm, distance PME-ALE 70 µm, distance AME-AME 55 µm, diameter AME 125 µm. Carapace ochre with dark brown triangular mark posteriorly, brown mark behind ocular area brown lateral margins; ocular area not darkened, clypeus with pair of indistinct bands below eyes, sternum brown; legs ochre-brown, darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae lighter; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 294-295, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus unmodified; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 320, with lateral proximal apophyses connected to short rounded distal apophyses, the latter and with ~25 large modified (cone-shaped) hairs on each side. Palps as in Figs. 296-298; coxa unmodified; trochanter with short conical retrolatero-ventral apophysis; femur with retrolateral flap and large whitish area ventrally, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally (hidden by bulb in Fig. 296); tarsus with some longer but barely stronger hairs dorsally; procursus with posterior indentation occupied by complex membranous structures, without hinge, with dorso-distal process; bulbal with simple small embolus with small sclerotized branch (Fig. 321). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in 4 other males: 8.6, 8.6, 8.7, 9.5.

Female. In general similar to male. Tibia 1 in 7 females: 7.0-7.8 (mean 7.4). Epigynum anterior plate trapezoidal (Figs. 304, 322), with distinct median process (Fig. 305) variable in shape even within localities (either rounded or with pair of small processes), posterior edges angular; large flat posterior plate; internal genitalia as in Figs. 306 and 323.

Natural history. *S. attuleh* was found mainly under large dead leaves on the ground, but also in small cavities in the ground and under roots.

Distribution. Known from three neighboring localities in Cameroon, Southwest Region (Fig. 293).

Smeringopina mbouda new species
Figs. 23, 299-303, 307-309, 324-342

Type. ♂ holotype from Cameroon, West Region, near Mbouda, Bamboutos (5°37.3'N, 10°06.7'E), 2100 m a.s.l., among rocks, near ground, 19.iv.2009 (B.A. Huber), in ZFMK (Ar 10221).

Other material examined. CAMEROON: *West Region*: near Mbouda, Bamboutos, same data as holotype, 7♂8♀ (2 vials) in ZFMK (Ar 10222-23); same data, 1♀ 4 juvs. in pure ethanol, in ZFMK (Cam 154**)**; *Northwest Region*: near Lake Oku (6°11.2'N, 10°27.9'E), 2400 m a.s.l., in hollows of large trees, 16.iv.2009 (B.A. & J.C. Huber), 7♂9♀ (2 vials) in ZFMK (Ar 10224-25); same data, 3♀ 2 juvs. in pure ethanol, in ZFMK (Cam 119). Near Lake Oku (6°12'N, 10°27'E), 2150 m a.s.l., 7.-13.ii.1992 (C. Griswold, S. Larcher, N. Scharff, C. Wanzie), 4♂7♀ 1 juv. in CAS; same data, 4♀ 3 juvs. (2 vials) in USNM. At Lake Oku (6°12.1'N, 10°27.6'E), 2300 m a.s.l., near ground, 16.iv.2009 (B.A. Huber), 4♂1♀ 1 juv. in ZFMK (Ar 10226). Near Oku (6°14.2'N, 10°31.5'E), ~2200 m a.s.l., near ground, 17.iv.2009 (B.A. & J.C. Huber), 1♂1♀ in ZFMK (Ar 10227); same data, 2 juvs. in pure ethanol, in ZFMK (Cam 84). Mount Oku, forest of *Podocarpus*/*Arundinaria* at 2450 m a.s.l. (6°12.9'N, 10°29.9'E), 14.ii.1992 (Griswold, Scharff, Larcher, Menzepoh, Tame), 1♂ in CAS. Near Bamenda, at Lake Awing (5°51.7'N, 10°12.0'E), 2100 m a.s.l., near ground, 15.iv.2009 (B.A. Huber), 2♀ in pure ethanol, ZFMK (Cam 110).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from most congeners by distinctive male cheliceral armature (very densely packed modified hairs on distinctively shaped apophyses; Figs. 326, 335) and procursus with posterior indentation occupied by complex membranous structures (Figs. 325, 331); from the very similar *S. attuleh* by longer male cheliceral apophyses (Fig. 326), complex embolus (Figs. 327, 338), absence of dorso-distal process on procursus (Fig. 325), and anterior epigynal plate without process (in lateral view; Fig. 308) and rounded posterior edges (in ventral view; Figs. 307, 328)

Male (holotype). Total body length 6.0, carapace width 2.0. Leg 1: 52.4 (12.3 + 0.8 + 12.4 + 23.2 + 3.7), tibia 2: 8.5, tibia 3: 6.1, tibia 4: 9.1; tibia 1 L/d: 54. Distance PME-PME 195 µm, diameter PME 175 µm, distance PME-ALE 90 µm, distance AME-AME 35 µm, diameter AME 160 µm. Carapace ochre-yellow with dark brown triangular mark posteriorly connected with brown ocular area and brown lateral margins; clypeus light brown, sternum brown; legs light brown, indistinct darker rings subdistally on femora and tibiae and in patella area; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 299-300, ocular area slightly elevated, secondary eyes with very indistinct 'pseudo-lenses'; clypeus unmodified; deep thoracic pit and pair of shallow furrows diverging behind pit (Figs. 330, 334). Chelicerae as in Figs. 326 and 335, with lateral proximal apophyses connected to distal apophyses, the latter and with ~35 modified (cone-shaped) hairs on each side (Fig. 326). Palps as in Figs. 301-303; coxa unmodified; trochanter with short wide conical retrolatero-ventral apophysis; femur with retrolateral flap and large whitish area ventrally, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally (hidden by bulb in Fig. 301); tarsus with some longer but barely stronger hairs dorsally; procursus with posterior indentation occupied by complex membranous structures, without hinge (Figs. 324-325, 331-332, 337); bulbal process with sclerotized distal apophysis and complex toothed prolateral ridge (Figs. 327, 338). Legs without spines and curved hairs, with few vertical hairs; retrolateral trichobothrium on tibia 1 at 2.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each (Fig. 341); male gonopore with two epiandrous spigots (Fig. 340).

Variation. Toothed ridge of embolus slightly variable in shape. Tibia 1 in 20 other males: 9.9-15.1 (mean 12.3).

Female. In general similar to male. Tibia 1 in 26 females: 8.3-11.1 (mean 9.3). Epigynum anterior plate wide and short (Figs. 307, 328), almost flat in lateral view (Fig. 308), some females with pair of low humps near rim and another pair at round sclerotized areas, posterior edges rounded; large posterior plate; internal genitalia as in Figs. 309 and 329. Spinnerets as in male (Fig. 342).

Natural history. At Lake Awing, *S. mbouda* was found in cavities of roadcuts, near Lake Oku in large hollow trees, and at Lake Oku and in Bamboutos in dark, protected spaces near the ground where the spiders were difficult to reach. Unlike its smaller sister species (*S. attuleh*) it was never found under dead leaves on the ground.

Distribution. Known from several localities in Cameroon, West and Northwest Regions (Fig. 293).

Smeringopina fon **new species**

Figs. 310-317, 343-348

Type. ♂ holotype from Benin, Kpinkonzoumé sacred forest (6°20.8'N, 2°18.0'E), 25.xi.2008 (S. Tchibozo), in ZFMK (Ar 10228).

Other material examined. SAO TOMÉ AND PRÍNCIPE: *Príncipe*: West Coast near Maria Correia Plantation, 8.65 air km WSW Santo Antonio de Príncipe (1°36.0'N, 7°21.2'E), near beach, 22.-24.iv.2001 (C.E. Griswold), 1♂1♀ 1 juv. in CAS.

NIGERIA: Kawara, Dekina (7°42'N, 7°01'E), x.1965-v.1966 (J.H. Davis), 1♀ in USNM.

Etymology. Named for the Fon people, a major West African ethnic group in Benin and southwest Nigeria; noun in apposition.

Diagnosis. Easily distinguished from known congeners by shape of procursus (distinctive ventral element; Fig. 344), male chelicerae (shapes of lateral and median projections; Fig. 345), and epigynum (shape of anterior plate with pair of processes and deep posterior indentation; Figs. 310, 347).

Male (holotype). Total body length 3.9, carapace width 1.3. Leg 1: 40.6 (9.8 + 0.6 + 9.8 + 18.6 + 1.8), tibia 2: 6.3, tibia 3: 4.2, tibia 4 missing; tibia 1 L/d: 79. Distance PME-PME 160 µm, diameter PME 125 µm, distance PME-ALE 45 µm, distance AME-AME 35 µm, diameter AME 95 µm. Carapace ochre-yellow with darker mark posteriorly, lateral margins and two pairs of lateral marks; ocular area with dark posterior mark, clypeus with brown pattern, sternum dark brown; legs ochre-yellow, with dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen gray with darker pattern dorsally, laterally, and ventrally. Habitus as in Figs. 313-314, ocular area slightly elevated, secondary eyes with very indistinct 'pseudo-lenses'; clypeus with pointed apophysis near rim (Fig. 314); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 345, with three rows of ridges (on lateral apophyses, on median projections, and in-between), without modified hairs. Palps as in Figs. 315-317; coxa unmodified; trochanter with ventral sclerotized hump; femur with whitish ventral area bordered retrolaterally by sclerotized flap, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some slightly stronger hairs dorsally; procursus with distinctive ventral element, complex prolateral structures, without hinge (Figs. 343, 344); bulb with weakly sclerotized simple process (Fig. 346; sperm duct apparently opens at base of this process). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in other male. 9.2; tibia 2/4: 5.9/5.8.

Female. In general similar to male; clypeus unmodified. Tibia 1: 7.0 (missing in second female). Epigynum with large anterior plate with pair of processes and deep posterior indentation (Figs. 310-311, 347); weakly curved posterior plate; internal genitalia as in Figs. 312 and 348.

Distribution. Known from Benin, Nigeria, and Príncipe Island (Fig. 293).

ankasa group

Smeringopina ankasa new species

Figs. 31, 349-353, 359-361, 372-377

Type. ♂ holotype from Ghana, Western Region, Ankasa National Park (5°13.0'N, 2°39.1'W), 180 m a.s.l., forest near entrance, day collecting, 22.ii.2013 (B.A. Huber), in ZFMK (Ar 10229).

Other material examined. GHANA: *Western Region*: Ankasa National Park, same data as type, 2♂19♀ in ZFMK (Ar 10230-31); same data but night collecting, 2♂3♀ in ZFMK (Ar 10232); same data, 3♀ in pure ethanol, in ZFMK (Gha 160); Ankasa National Park (~5°15.1'°N, 2°38.4'W), ~100 m a.s.l., forest along Big Tree Trail, 23.ii.2013 (B.A. Huber), 1♂2♀ in ZFMK (Ar 10233).

IVORY COAST: Appouesso, Forêt classée de la Bossematié [6°36.9'N, 3°27.1'W], night, 13.iii.1997 (T. Steyn), 1♂ in MRAC (207400); same locality, dense forest, in webs between tree buttresses, 30.xi.1993 (R. Jocqué), 1♀ in MRAC (177613 part); same locality, forest, pitfall, 15./29.i.1995 (Jocqué, Tanoh), 3♂ (3 vials) in MRAC (204444-46).

LIBERIA: *Bong*: Bong Range forest [6°49'N, 10°17'W], pitfalls in rainforest, 15.ii.-6.xi.2005 (D. Flomo), 2♂5♀ (7 vials) in MRAC (216603, 612, 636, 801, 217571, 218124, 219184).

Assigned tentatively: GHANA: *Central Region*: Kakum National Park (5°20.9'N, 1°23.0'W), 160 m a.s.l., forest near entrance, day collecting, 19.-20.ii.2013 (B.A. Huber), 1♂5♀ in ZFMK (Ar 10234-35).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from *S. bomfobiri* and other known congeners by distinctive shape of procursus (Figs. 372-373), male chelicerae (no distal apophyses; Fig. 374), and by epigynum with strongly protruding anterior plate (Figs. 359-360).

Male (holotype). Total body length 3.9, carapace width 1.4. Leg 1: 43.4 (10.2 + 0.5 + 10.5 + 20.2 + 2.0), tibia 2: 6.2, tibia 3: 4.3, tibia 4: 6.6; tibia 1 L/d: 85. Distance PME-PME 140 µm, diameter PME 140 µm, distance PME-ALE 80 µm, distance AME-AME 45 µm, diameter AME 135 µm. Carapace ochre with darker triangular mark posteriorly and lateral margins; ocular area ochre, clypeus with indistinct dark bands, sternum dark brown; legs ochre, with barely visible darker rings; abdomen ochre with darker pattern dorsally, laterally, and ventrally. Habitus as in Figs. 349-350, ocular area slightly elevated, secondary eyes with very indistinct 'pseudo-lenses'; clypeus unmodified; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 374, with lateral proximal apophyses and frontal projections arising from bases of lateral apophyses, without distal apophyses, with large and small modified (cone-shaped) hairs. Palps as in Figs. 351-353; coxa with distinct retrolateral hump; trochanter with ventral sclerotized hump; femur with whitish ventral area bordered retrolaterally by weakly sclerotized flap, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some barely stronger hairs dorsally; procursus with several distinctive processes (Figs. 372-373), distal part appears hinged (most clearly in dorsal view: Fig. 352); bulb with weakly sclerotized conical embolus (Fig. 375). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. Gonopore apparently with two epiandrous spigots (not confirmed by SEM).

Variation. Number and position of modified hairs on chelicerae slightly variable even within localities. In males from Liberia the rows of modified hairs on the chelicerae are closer to the median line. The male from Kakum N.P. differs slightly in the shape of the procursus (shape of prolateral distal flap) and is therefore assigned tentatively (see also females below). Tibia 1 in 8 other males: 8.6-10.8 (mean: 9.6).

Female. In general similar to male. Tibia 1 in 28 females: 6.5-8.4 (mean 7.5). Epigynum with strongly protruding anterior plate and large posterior plate (Figs. 359-360, 376); internal genitalia as in Figs. 361 and 377. Females from Kakum N.P. with posterior border of anterior epigynal plate less strongly indented and with distinct hump on anterior epigynal plate.

Distribution. Widely distributed in southwestern Ghana, Ivory Coast, and Liberia (Fig. 293).

Smeringopina bomfobiri **new species**

Figs. 354-358, 362, 378-383

Type. ♂ holotype from Ghana, Ashanti Region, Bomfobiri Wildlife Sanctuary (6°57.7'N, 1°11.4'W), 240 m a.s.l., among rocks in canyon, 3.iii.2013 (B.A. Huber), in ZFMK (Ar 10236).

Other material examined. GHANA: *Ashanti Region*: Bomfobiri Wildlife Sanctuary: same data as type, 4♂6♀ 1 juv. in ZFMK (Ar 10237-38); same data, 3♀ 2 juvs. in pure ethanol, in ZFMK (Gha 130). *Eastern Region*: Atewa Hills, Atewa Atwirebu Reserve (6°13.8'N, 0°33.5'W), 740 m a.s.l., 25.ii.2013 (B.A. Huber), 3♂8♀ 1 juv. in ZFMK (Ar 10239-40); same data, 4♀ 1 juv. in pure ethanol, in ZFMK (Gha 133). Near Mpraeso (6°34.1'N, 0°43.9'W), 370 m a.s.l., degraded forest near road, 10.iii.2013 (B.A. Huber), 2♂4♀ in ZFMK (Ar 10241); same data, 1♀ 5 juvs. in pure ethanol, in ZFMK (Gha 154). *Central Region*: Kakum National Park (5°20.9'N, 1°23.0'W), 160 m a.s.l., forest near entrance, day collecting, 19.-20.ii.2013 (B.A. Huber), 10♂16♀ 2 juvs. (4 vials) in ZFMK (Ar 10242-45); same data but night collecting, 2♂2♀ 2 juvs. in ZFMK (Ar 10246); same data, 5♀ 5 juvs. in pure ethanol, in ZFMK (Gha 144). *Volta Region*: Agumatsa Wildlife Sanctuary, Wli waterfall (7°06.2'N, 0°36.0'E), ~300 m a.s.l., forest near waterfall, 27.ii.2013 (B.A. Huber), 2♀ in ZFMK (Ar 10247); same data, 2♀ 2 juvs. in pure ethanol, in ZFMK (Gha 162**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from *S. ankasa* and other known congeners by distinctive shape of procursus (Figs. 378-379), male chelicerae (distal apophyses; Fig. 380), and by epigynum with weakly protruding, deeply indented anterior plate (Fig. 362, 383).

Male (holotype). Total body length 3.4, carapace width 1.3. Leg 1: 33.7 (7.8 + 0.5 + 8.1 + 15.5 + 1.8), tibia 2: 4.9, tibia 3: 3.4, tibia 4: 5.2; tibia 1 L/d: 65. Distance PME-PME 170 µm, diameter PME 125 µm, distance PME-

ALE 55 µm, distance AME-AME 35 µm, diameter AME 95 µm. Carapace ochre with darker median mark and lateral margins; ocular area ochre, clypeus with indistinct pair of dark bands, sternum dark brown; legs ochre, with dark rings on femora subdistally and tibiae proximally and subdistally; abdomen ochre with darker pattern dorsally, laterally, and ventrally. Habitus as in Figs. 354-355, ocular area slightly elevated, secondary eyes with very indistinct 'pseudo-lenses'; clypeus unmodified; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 380, with lateral proximal apophyses and distinctive distal apophyses, with large and small modified (cone-shaped) hairs. Palps as in Figs. 356-358; coxa with rounded retrolateral hump; trochanter with simple ventral sclerotized hump; femur with whitish ventral area bordered retrolaterally by weakly sclerotized flap, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some barely stronger hairs dorsally; procursus with several distinctive sclerotized and membranous processes (Figs. 378-379), distal part appears hinged (most clearly in dorsal view: Fig. 357); bulb with weakly sclerotized conical embolus with subdistal branch (Fig. 381). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 2%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. Gonopore apparently with two epiandrous spigots (not confirmed by SEM).

Variation. Number and position of modified hairs on chelicerae slightly variable even within localities. Males from Kakum N.P. differ minimally in several respects: their palps are almost identical but the shape of the distal sclerotized procursus apophysis is slightly different; the distal cheliceral apophyses are slightly more slender; the legs are more slender and tend to be shorter. Tibia 1 in 11 males from Kakum N.P.: 6.4-8.4 (mean 7.6); in 8 males from all other localities: 7.8-9.4 (mean 8.9).

Female. In general similar to male. Tibia 1 in 18 females from Kakum N.P.: 5.0-6.8 (mean 5.8); in 18 females from all other localities: 5.8-9.0 (mean 7.2). Epigynum consisting of weakly protruding anterior plate with deep posterior indentation (Figs. 362, 383) and large posterior plate; internal genitalia as in Fig. 382.

Distribution. Known from several localities in southern Ghana (Fig. 293).

Smeringopina ibadan new species

Figs. 363-371, 384-389

Type. ♂ holotype from Nigeria, Ibadan, IITA [International Institute of Tropical Agriculture, 7°29.4'N, 3°53.4'E], fallow bush, 28.x.1974 (A. Russell-Smith), in ZFMK (Ar 10248).

Other material examined. NIGERIA: Ibadan, same locality as holotype, 22.iv.1974 (A. Russell-Smith), 1♀ in ZFMK (Ar 10249); same locality, secondary forest, 17.iv.1981 (A. Russell-Smith), 1♂ in ZFMK (Ar 10250); same locality, sweeping at road verges, 17.v.1974 (A. Russell-Smith), 1♂ in BMNH.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from known congeners by huge distal male cheliceral apophyses (Figs. 364, 387), by distinctive shape of procursus (Figs. 384-385), and by longer than wide epigynum with flat and deeply indented anterior plate (Figs. 368, 389).

Male (holotype). Total body length 4.2, carapace width 1.6. Leg 1: 38.4 (9.0 + 0.5 + 9.3 + 18.0 + 1.6), tibia 2: 5.7, tibia 3: 4.1, tibia 4: 6.1; tibia 1 L/d: 70. Distance PME-PME 205 µm, diameter PME 140 µm, distance PME-ALE 55 µm, distance AME-AME 45 µm, diameter AME 135 µm. Carapace ochre-yellow with darker triangular mark posteriorly and lateral margins; ocular area ochre-yellow, clypeus with dark rim, sternum light brown; legs pale ochre-yellow, without darker rings; abdomen pale ochre-gray with barely visible darker pattern (specimen probably bleached). Habitus as in Figs. 365-367, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses'; clypeus unmodified except longer than usual hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 364 and 387, with lateral proximal apophyses, small frontal projections, and distinctively exaggerated distal apophyses bent upwards at their tips, without modified hairs (Fig. 388). Palps as in Figs. 369-371; coxa with distinct retrolateral projection weakly sclerotized; trochanter with ventral sclerotized rim but without projection; femur with whitish ventral area bordered retrolaterally by weakly sclerotized flap, without prolateral modification; prolateral femur-patella joint shifted toward ventrally (though not extremely); tarsus without stronger hairs; procursus with several distinctive processes (Figs. 384-385; distal part appears hinged: Fig. 370); bulb with weakly sclerotized conical embolus (Fig. 386). Legs without spines and curved hairs, with few vertical hairs (many hairs missing), retrolateral trichobothrium on tibia 1 at 1.5%; prolateral

trichobothrium present on all tibiae; pseudosegments barely visible. Gonopore apparently with two epiandrous spigots (not confirmed by SEM).

Variation. The other two males are bleached and in poor condition, with abdomens and tibiae 1 missing.

Female. In general similar to male; clypeus with shorter hairs. Tibia 1 missing. Epigynum longer than wide, with flat and deeply indented anterior plate and large posterior plate fitting into this indentation (Fig. 368); internal genitalia as in Figs. 363 and 389.

Distribution. Known from type locality only (Fig. 293).

cornigera group

Smeringopina armata (Thorell, 1899)

Figs. 391-395, 427-431

Smeringopus armatus Thorell 1899: 22 (♂).
Smeringopina armata: Kraus 1957: 234-236, figs. 41-42 (♂).

Type. ♂ holotype from Cameroon, no further locality data, 1891 (Y. Sjöstedt), in NHRS (282), examined.

Other material examined. CAMEROON: *Southwest Region*: Mamfe [5°45'N, 9°19'E], 7.-11.i.1949 (B. Malkin), 1♂ in CAS.

Diagnosis. Distinguished from similar congeners (small species with male horns in ocular area) by modification of male clypeus (Fig. 427; small median process and pair of longer processes at rim), male chelicerae (Fig. 431; without modified hairs, without frontal ridges), and by shapes of procursus and embolus (Figs. 428-430).

Male (Mamfe). Total body length 4.1, carapace width 1.2. Leg 1: 10.4 + 0.5 + 11.0, metatarsus broken, tibia 2 missing, tibia 3: 5.0, tibia 4: 7.0; tibia 1 L/d: 96. Distance PME-PME 175 µm, diameter PME 135 µm, distance PME-ALE 70 µm, distance AME-AME 45 µm, diameter AME 105 µm. Carapace pale ochre with brown mark posteriorly and brown lateral margins; ocular area not darkened, clypeus distally slightly darkened, sternum brown; legs pale ochre, darker rings barely visible; abdomen ochre-gray with dark pattern dorsally, ventrally with pair of dark bands in posterior half and irregular spots in anterior half. Habitus as in Figs. 391-392, ocular area slightly elevated, each triad on additional hump, with one pair of pointed horns above ALE (Fig. 427), 'pseudo-lenses' not visible; clypeus with short (30 µm) median process and pair of longer (105 µm) processes at rim (Fig. 427); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 431, with lateral proximal apophyses, without distal apophyses, without modified hairs. Palps as in Figs. 393-395; coxa with retrolateral apophysis; trochanter with short rounded retrolatero-ventral apophysis; femur with weakly sclerotized retrolateral flap and large whitish area ventrally, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some longer but only slightly stronger hairs dorsally; procursus without hinge, with brush of hairs retrolatero-ventrally near tip; bulb with distinctive embolus (Fig. 430; sperm duct apparently opens near basis in membranous area). Legs without spines and curved hairs, with few vertical hairs (most hairs missing), retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 4 in holotype: 7.3 (tibia 1 missing). The holotype is in fair condition, entire specimen artificially gray, both palps and chelicerae detached, right palp missing (illustrated by Kraus 1957).

Female. Unknown.

Distribution. Known from only one locality in Southwest Region, Cameroon (apart from unspecified type locality; Fig. 390).

Smeringopina bamenda new species

Figs. 20, 396-400, 411-414, 432-438

Type. ♂ holotype from Cameroon, Northwest Region, near Bamenda, under log at roadside (6°00.5'N, 10°18.1'E), 1750 m a.s.l., 16.iv.2009 (B.A. Huber), in ZFMK (Ar 10251).

Other material examined. CAMEROON: *Northwest Region*: near Bamenda, type above, together with 1♀; same data, 2♀ 2 juvs. in pure ethanol, in ZFMK (Cam 78). "Bali, Bafuchu Mbu, Shum Laka" [Mbu-Baforchu, ~5°50.4'N, 10°04.8'E], 1600 m a.s.l., pitfall, xii.1991-ii.1992 (H. Doutrelepont), 2♂2♀ (4 vials) in MRAC (174768, 783, 860, 891).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from similar congeners (small species with male horns in ocular area) by unique modification of male clypeus (Figs. 413, 432), male chelicerae (Fig. 436; without modified hairs, with pair of strong frontal ridges), and by shapes of procursus and embolus (Figs. 433-434). Female difficult to distinguish from close relatives but internal anterior structure (Figs. 414, 438) narrower than in *S. cornigera*, *S. nyasoso*, and *S. kala*.

Male (holotype). Total body length 3.8, carapace width 1.3. Leg 1: 35.2 (8.2 + 0.5 + 8.4 + 16.6 + 1.5), tibia 2: 5.0, tibia 3: 3.5, tibia 4: 5.2; tibia 1 L/d: 79. Distance PME-PME 240 µm, diameter PME 135 µm, distance PME-ALE 115 µm, distance AME-AME 25 µm, diameter AME 95 µm. Carapace ochre-yellow with brown mark posteriorly, brown lateral margins and 2-3 submarginal spots on each side; ocular area not darkened, clypeus laterally with red-brown margins, sternum brown; legs ochre-yellow, with darker rings subdistally on femora and tibiae and proximally on tibiae; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 396-397, ocular area slightly elevated, each triad on additional hump, with one pair of long pointed horns above ALE (Figs. 413, 432), 'pseudo-lenses' not visible; clypeus with large complex process overhanging chelicerae (Figs. 413, 432); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 436, with lateral proximal apophyses and pair of strong frontal ridges ending in short apophysis, without modified hairs. Palps as in Figs. 398-400; coxa with retrolateral apophysis; trochanter with short rounded retrolatero-ventral apophysis; femur with weakly sclerotized retrolateral flap and large whitish area ventrally, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some barely longer and stronger hairs dorsally; procursus without hinge, with several brushes of feathered hairs retrolaterally, ventrally, and on prolateral side near basis; bulb with weakly sclerotized embolus (Fig. 435). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 2%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in 2 other males: 8.6, 9.0.

Female. In general similar to male; clypeus unmodified, with two dark bands from eye triads to rim; ocular area with one pair of low humps above ALE. Tibia 1 in 2 females: 7.1, 7.7. Epigynum anterior plate deeply indented posteriorly, with strongly protruding rim, anteriorly rugose (Figs. 411-412, 437); large flat posterior plate; internal genitalia as in Figs. 414 and 438.

Distribution. Known from two localities in the Northwest Region of Cameroon (Fig. 390).

Smeringopina cornigera **(Simon, 1907)**

Figs. 401-405, 421, 424, 439-455

Smeringopus corniger Simon 1907: 250-251 (♂).
Smeringopina cornigera: Kraus 1957: 233.

Type. ♂ holotype (together with 1♀; see Note below) from Cameroon, Southwest Region, Buea [4°09.3'N, 9°13.9'E], 800-1200 m a.s.l., vi.-vii.1902 (L. Fea), in MSNG, examined.

Note. The type vial contains 1♂1♀ but Simon (1907) only described the male specimen which is therefore regarded a holotype. The female may or may not originate from the same locality. Since females of *S. nyasoso* are very similar, even its conspecificity with the male holotype is uncertain.

Other material examined. CAMEROON: *Southwest Region*: Fako Div., Limbe Subdiv., 1.4 km NE Etome (4°03.0'N, 9°07.5'E), ~400 m a.s.l., 13.-19.i.1992 (Larcher, Hormiga, Coddington, Griswold, Wanzie), 4♂3♀ in CAS; same data, 1♂4♀ in USNM.

Diagnosis. Distinguished from most congeners by horns in male ocular area (Figs. 445-446) and male clypeus with many small modified (globular) hairs on low humps near rim (Fig. 445-446, 449); from the very similar *S. nyasoso* and *S. kala* by shape of procursus (almost circular in lateral view, with rounded posterior process; Figs. 439-440); females may be externally indistinguishable from those of *S. nyasoso* and *S. kala* but the anterior

epigynal process is apparently smaller than in these two species (note small sample sizes) and the position and shape of pore plates is significantly different from *S. kala* (compare Figs. 444 and 467).

Male (NE Etome, CAS). Total body length 4.2, carapace width 1.5. Leg 1: 48.2 (11.0 + 0.5 + 11.7, 23.0 + 2.0), tibia 2: 7.1, tibia 3: 4.9, tibia 4: 7.4; tibia 1 L/d: 94. Distance PME-PME 230 µm, diameter PME 160 µm, distance PME-ALE 90 µm, distance AME-AME 35 µm, diameter AME 125 µm. Carapace ochre-yellow with triangular brown mark posteriorly, brown pit and brown lateral margins; ocular area not darkened, clypeus with red-brown lateral margins, sternum brown; legs ochre-yellow, darker rings barely visible; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 401-402, ocular area slightly elevated, each triad on additional hump, with two pairs of horns, one long and pointed above ALE, the other short, blunt and slightly more median (Figs. 445-446), 'pseudo-lenses' only visible at PME; clypeus with pair of low humps near rim, each with ~20 small modified (globular) hairs, with small depression between humps (Figs. 445-446); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 442, with lateral proximal apophyses and short distal apophyses, the latter and frontal cheliceral face with ~20 small modified (globular) hairs on each side (Fig. 450). Palps as in Figs. 403-405; coxa with retrolateral apophysis; trochanter with small ventral apophysis; femur with weakly sclerotized retrolateral flap and large whitish area ventrally, without prolateral modification; prolateral femur-patella joint only slightly shifted toward ventrally; tarsus with some longer but only slightly stronger hairs dorsally; procursus almost circular in lateral view, with rounded posterior process, without hinge, with many hairs on retrolateral face and pointed membranous process on prolateral side (Figs. 439-440, 447-448, 451); bulb with simple small embolus with small pointed process (Fig. 441). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each; gonopore with two epiandrous spigots (Fig. 453).

Variation. Tibia 1 in three other males: 10.1 (holotype), 10.5, 10.7. The holotype is slightly bleached but in good condition.

Female. In general similar to male; clypeus unmodified, with two dark bands from eye triads to rim; ocular area with one pair of low humps above ALE. Tibia 1 in 7 females: 7.2-8.4 (mean 7.8). Epigynum anterior plate trapezoidal, with very small anterior process, lateral edges drawn backwards (Figs. 421, 443, 455); large flat posterior plate; internal genitalia as in Figs. 424 and 444. ALS with eight spigots each (Fig. 452).

Distribution. Known from two localities in southwestern Cameroon (Fig. 390).

Smeringopina nyasoso new species

Figs. 21-22, 406-410, 415, 422, 425, 456-461

Smeringopina Cam31: Dimitrov, Astrin & Huber 2013 (DNA data).

Type. ♂ holotype from Cameroon, Southwest Region, Mt. Koupé above Nyasoso (4°49.6'N, 9°41.1'E), ~1600 m a.s.l., near ground, 23.iv.2009 (B.A. Huber), in ZFMK (Ar 10252).

Other material examined. CAMEROON: *Southwest Region*: Mt. Koupé above Nyasoso, same data as holotype, 22.-23.iv.2009, 5♂7♀ 3 juvs. (5 vials) in ZFMK (Ar 10253-57); same data, 7♀ 8 juvs. (2 vials) in pure ethanol, in ZFMK (Cam 94, 147**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from most congeners by horns in male ocular area (Fig. 415) and male clypeus with many small modified (globular) hairs on low humps near rim (cf. *S. cornigera*, Fig. 445); from the very similar *S. cornigera* and *S. kala* by shape of procursus (wide, with pointed posterior process; Figs. 456-457); females may be externally indistinguishable from those of *S. cornigera* and *S. kala* but the anterior epigynal process is apparently larger than in *S. cornigera* (note small sample sizes) and the position and shape of pore plates is significantly different from *S. kala* (compare Figs. 461 and 467).

Male (holotype). Total body length 4.4, carapace width 1.5. Leg 1: 10.5 + 0.5 + 10.8, metatarsus broken, tibia 2: 6.7, tibia 3: 4.7, tibia 4: 7.1; tibia 1 L/d: 87. Distance PME-PME 220 µm, diameter PME 150 µm, distance PME-ALE 105 µm, distance AME-AME 35 µm, diameter AME 135 µm. Carapace light brown with dark brown triangular mark posteriorly, brown pit and brown lateral margins; ocular area not darkened, clypeus with dark

brown lateral margins and pair of dark bands below eyes, sternum brown; legs light brown, darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 406-407, ocular area slightly elevated, each triad on additional hump, with two pairs of horns, one long and pointed above ALE, the other short, blunt and slightly more median, 'pseudo-lenses' only visible at PME; clypeus with pair of low humps near rim, each with ~15 small modified (globular) hairs, with distinct depression between humps; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 459, with lateral proximal apophyses and short distal apophyses directed toward frontally, the latter and frontal cheliceral face with ~15 small modified (globular) hairs on each side. Palps as in Figs. 408-410; coxa with retrolateral apophysis; trochanter with small ventral apophysis; femur with weakly sclerotized retrolateral flap and large whitish area ventrally, without prolateral modification; prolateral femur-patella joint only slightly shifted toward ventrally; tarsus with some longer but only slightly stronger hairs dorsally; procursus short and wide in lateral view, with pointed posterior process, without hinge, with many hairs on retrolateral face and pointed membranous process on prolateral side (Figs. 456-457); bulb with simple small embolus with small pointed process (Fig. 458). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in 5 other males: 9.3-11.1 (mean 10.6).

Female. In general similar to male; clypeus unmodified; ocular area with one pair of low humps above ALE. Tibia 1 in 7 females: 7.0-8.3 (mean 7.9). Epigynum anterior plate trapezoidal, with distinct anterior process, lateral edges drawn backwards (Figs. 422, 460); large flat posterior plate; internal genitalia as in Figs. 425 and 461.

Natural history. *S. nyasoso* was mainly found under leaves that were curved in a way to provide protected space between leaf and soil, but also in little cavities in the ground near a brook.

Distribution. Known from type locality only (Fig. 390).

Smeringopina kala **new species**

Figs. 19, 416-420, 423, 426, 462-467

Type. ♂ holotype from Cameroon, Centre Region, near Yaoundé, Mt. Kala (3°51.0'N, 11°20.3'E), 730 m a.s.l., near ground, 14.iv.2009 (B.A. Huber), in ZFMK (Ar 10258).

Other material examined. CAMEROON: *Centre Region*: near Yaoundé, Mt. Kala, same data as holotype, 2♂1♀ 1 juv. in ZFMK (Ar 10259); same data, 3♀ 2 juvs. in pure ethanol, in ZFMK (Cam 104).

EQUATORIAL GUINEA: Micomeseng [Mekomeseng, 2°08.4'N, 10°36.6'E], pitfall in evergreen forest, 8.-13.vii.1989 (M. Alderweireldt), 1♂ in MRAC (170203).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from most congeners by horns in male ocular area (Figs. 19, 417) and male clypeus with many small modified (globular) hairs on low humps near rim (cf. *S. cornigera*, Fig. 445); from the very similar *S. cornigera* and *S. nyasoso* by shape of procursus (much narrower; Figs. 462-463); females may be externally indistinguishable from those of *S. cornigera* and *S. nyasoso* but the anterior epigynal process is apparently larger than in *S. cornigera* (note small sample sizes) and the position and shape of pore plates (Fig. 467) is significantly different from both species.

Male (holotype). Total body length 3.9, carapace width 1.5. Leg 1 missing, tibia 2: 6.8, tibia 3: 4.7, tibia 4: 7.3. Distance PME-PME 220 µm, diameter PME 135 µm, distance PME-ALE 125 µm, distance AME-AME 45 µm, diameter AME 135 µm. Carapace light brown with dark brown triangular mark posteriorly, brown pit and brown lateral margins; ocular area not darkened, clypeus with dark brown lateral margins and pair of indistinct bands below eyes, sternum brown; legs light brown, darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 416-417, ocular area slightly elevated, each triad on additional hump, with two pairs of horns, one long and pointed above ALE, the other short, blunt and slightly more median, 'pseudo-lenses' only visible at PME; clypeus with pair of low humps near rim, each with ~15 small modified (globular) hairs, with distinct depression between humps; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 465, with lateral proximal apophyses and very short distal apophyses, the latter and frontal cheliceral face with ~15 small modified

(globular) hairs on each side. Palps as in Figs. 418-420; coxa with retrolateral apophysis; trochanter with small ventral apophysis; femur with weakly sclerotized retrolateral flap and large whitish area ventrally, without prolateral modification; prolateral femur-patella joint only slightly shifted toward ventrally; tarsus with some longer but only slightly stronger hairs dorsally; procursus very simple, curved toward ventrally, without hinge, with many hairs on retrolateral face and pointed membranous process on prolateral side (Figs. 462-463); bulb with simple small embolus with small pointed process (Fig. 464). Legs without spines and curved hairs, with few vertical hairs.

Variation. Tibia 1 in other male: 10.4 (missing in others).

Female. In general similar to male; clypeus unmodified; ocular area with one pair of low humps above ALE. Tibia 1: 7.3. Epigynum anterior plate trapezoidal, with distinct anterior process, lateral edges drawn backwards (Figs. 423, 466); large flat posterior plate; internal genitalia as in Figs. 426 and 467.

Natural history. The specimens at Mt. Kala were found under dead leaves on the ground.

Distribution. Known from two localities in southwestern Cameroon and Equatorial Guinea (Fig. 390).

simplex group

Smeringopina camerunensis Kraus, 1957

Figs. 469-473, 509-510, 525, 541-546

Smeringopina camerunensis Kraus 1957: 237-238, figs. 64-65, 70-71.

Type. ♂ holotype from Cameroon, Duala [=Douala, 4°03.0'N, 9°42.6'E], 16.xii.1913 (A. Haas), in SMF (9814/1), examined.

Other material examined. CAMEROON: *Littoral Region*: degraded forest fragment near Douala (4°00.6'N, 9°47.9'E), 25 m a.s.l., near ground, 6.iv.2009 (B.A. & J.C. Huber), 2♂1♀ in ZFMK (Ar 10260); same data, 1♂4♀ 1 juv. in pure ethanol, in ZFMK (Cam 149**)**. Near Edéa, Koukoué (3°41.2'N, 10°06.4'E), 50 m a.s.l., near ground, 8.iv.2009 (B.A. & J.C. Huber), 1♀ in ZFMK (Ar 10261). *Southwest Region*: Matute, Tiko Plantation [Tiko: 4°04.7'N, 9°21.6'E], 24.iv.-6.v.1949 (B. Malkin), 2♀ in CAS.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by distinctively wide and weakly sclerotized tip of procursus (Figs. 541-542), very wide and rounded distal male cheliceral apophyses (Fig. 543), and anterior epigynal plate with small central projection in lateral view (Fig. 510; smaller than in *S. africana*).

Male (near Douala, ZFMK). Total body length 7.0, carapace width 1.6. Leg 1: 71.4 (16.1 + 0.7 + 15.7 + 35.7 + 3.2), tibia 2: 10.9, tibia 3: 7.5, tibia 4: 10.1; tibia 1 L/d: 104. Distance PME-PME 230 µm, diameter PME 150 µm, distance PME-ALE 70 µm, distance AME-AME 30 µm, diameter AME 160 µm. Carapace ochre-yellow with brown mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus distally brown, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 469-470, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified except longer than usual hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 543, with lateral proximal apophyses and wide and rounded distal apophyses, the latter and frontal cheliceral face provided with several modified (cone-shaped) hairs. Palps as in Figs. 471-473; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral sclerotized ridge, without or with very indistinct shallow pocket, with barely visible retrolateral hump, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with fairly distinct hinge dividing proximal from distal part (Fig. 541), with wide and weakly sclerotized tip; bulb with widened but weakly sclerotized proximal part of embolus (Fig. 544). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Number of modified hairs frontally on male chelicerae slightly variable. Tibia 1 in other male from near Douala: 16.1. Holotype in fair condition, very bleached, both palps detached; tibia 1 missing (femur 1: 15.2); with 2 and 4 modified hairs respectively on each cheliceral basis.

Female. In general similar to male; clypeus with shorter hairs; sternum and clypeus variably dark. Tibia 1 in 4 females: 12.1, 12.5, 12.5, 13.3. Epigynum relatively small, consisting of trapezoidal anterior plate with small central projection and large posterior plate (Figs. 509-510, 545); internal genitalia as in Figs. 525 and 546.

Natural history. The newly collected specimens were found in a small patch of degraded swampy forest. They were not rare and built their large domed webs in sheltered spaces very close to the ground.

Distribution. Known from four localities in southwestern Cameroon (Fig. 468).

Smeringopina djidji new species

Figs. 474-478, 511-512, 547-552

Type. ♂ holotype from Gabon, Ogooué-Ivindo, near Djidji (0°12.8'N, 11°49.3'E), 470 m a.s.l., forest, 12.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10262).

Other material examined. GABON: *Ogooué-Ivindo*: near Djidji: same data as holotype, 1♂3♀ in ZFMK (Ar 10263); same data, 2♀ in pure ethanol, in ZFMK (Gab 241**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by distinctive shape of procursus (same width over all its length; Figs. 547-548), and large hump in anterior part of epigynum (Fig. 512); also by modified male clypeus (with cone-shaped hairs similar to *S. bwiti* but modified hairs not on humps).

Male (holotype). Total body length 8.0, carapace width 1.9. Leg 1: 82.8 (18.5 + 0.8 + 18.0 + 41.9 + 3.6), tibia 2: 13.5, tibia 3: 8.8, tibia 4: 11.3; tibia 1 L/d: 107. Distance PME-PME 210 µm, diameter PME 210 µm, distance PME-ALE 90 µm, distance AME-AME 45 µm, diameter AME 210 µm. Carapace ochre-yellow with brown mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus with pair of brown marks at rim, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 474-475, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus with about 18 small modified (cone-shaped) hairs and longer than usual normal hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 549, with lateral proximal apophyses and distal apophyses; distal apophyses and frontal cheliceral face provided with several small modified (cone-shaped) hairs. Palps as in Figs. 476-478; coxa unmodified; trochanter with ventral apophysis; femur proximally with ventral sclerotized ridge, without or with very indistinct shallow pocket, with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with seven very strong hairs dorsally; procursus without (or extremely indistinct) hinge between proximal and distal part, dorsal rim serrated; bulb with widened but weakly sclerotized proximal part of embolus (Fig. 550). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Other male with only 14 modified hairs on clypeus; tibia 1: 15.1

Female. In general similar to male; clypeus unmodified, variably dark. Tibia 1: 14.8 (missing in other females). Epigynum consisting of long rectangular anterior plate with distinctive hump frontally and large posterior plate (Figs. 511-512, 551); internal genitalia as in Figs. 526 and 552.

Natural history. *S. djidji* was mainly found between buttresses of large trees.

Distribution. Known from type locality only (Fig. 468).

Smeringopina ogooue new species

Figs. 8-9, 479-483, 513-514, 527, 553-568

Type. ♂ holotype from Gabon, Ogooué-Lolo, near Moudouma (1°23.5'S, 12°09.6'E), 475 m a.s.l., forest along brook, 24.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10264).

Other material examined. GABON: *Ogooué-Lolo*: near Moudouma: same data as holotype, 10♂5♀ in ZFMK (Ar 10265); same data, 2 juvs. in pure ethanol, in ZFMK (Gab 159**)**. Forest near Lastoursville (0°48.0'S,

12°44.4'E), 300 m a.s.l., 21.viii.2011 (B.A. Huber), 2♂4♀ in ZFMK (Ar 10266); same data, 1 juv. in pure ethanol, in ZFMK (Gab 220**)**. Grotte de Pahon Pira near Lastoursville (0°48.8'S, 12°45.1'E), 360 m a.s.l., in cave and near entrance, 22.viii.2011 (B.A. & S.R. Huber), 6♂17♀ in ZFMK (Ar 10267); same data, 1 juv. in pure ethanol, in ZFMK (Gab 162**)**. Forest at brook near Lastoursville, near Grotte de Pahon Pira (0°48.8'S, 12°45.2'E), 290 m a.s.l., 22.-23.viii.2011 (B.A. Huber), 1♂3♀ in ZFMK (Ar 10268). *Haut Ogooué*: degraded forest at hill near Mouanda (1°34.3'S, 13°11.0'E), 460 m a.s.l., 20.viii.2011 (B.A. Huber), 1♂ in ZFMK (Ar 10269); same data, 1 juv. in pure ethanol, in ZFMK (Gab 163**)**. Forest at Lékoni River (1°10.7'S, 13°32.3'E), 305 m a.s.l., 18.viii.2011 (B.A. & S.R. Huber), 3♂3♀ in ZFMK (Ar 10270); same data, 4 juvs. in pure ethanol, in ZFMK (Gab 215**)**. Forest near Bongoville (1°36.7'S, 13°57.4'E), 600-650 m a.s.l., 20.viii.2011 (B.A. Huber), 2♂2♀ 1 juv. in ZFMK (Ar 10271); same data, 1♀ 2 juvs. in pure ethanol, in ZFMK (Gab 205**)**. *Ogooué-Ivindo*: near Mohoba Mozeye (0°16.8'N, 13°20.9'E), 510 m a.s.l., forest along road, 17.viii.2011 (B.A. & S.R. Huber), 4♂2♀ in ZFMK (Ar 10272); same data, 2 juvs. in pure ethanol, in ZFMK (Gab 168**)**. Monts de Belinga, forest near Mayebout (1°06.7'N, 13°06.6'E), 500 m a.s.l., 13.-14.viii.2011 (B.A. & S.R. Huber), 2♂ in ZFMK (Ar 10273); Monts de Belinga, Mayebout (1°06.9'N, 13°06.4'E), 500 m a.s.l., in building, 13.viii.2011 (B.A. & S.R. Huber), 1♂ in pure ethanol, in ZFMK (Gab 226**)**. Monts de Belinga, NE Makokou (0°47.0'N, 13°08.3'E), 530 m a.s.l., degraded forest along road, 15.viii.2011 (B.A. & S.R. Huber), 2♂4♀ in ZFMK (Ar 10274); same data, 2♀ 2 juvs. in pure ethanol, in ZFMK (Gab 224**)**. N Tébé (0°02.3'S, 13°40.9'E), 550 m a.s.l., forest along brook, 17.viii.2011 (B.A. & S.R. Huber), 1♂2♀ in ZFMK (Ar 10275); same data, 2 juvs. in pure ethanol, in ZFMK (Gab 165).

Etymology. The name is derived from the Ogooué River whose watershed drains nearly the entire country of Gabon; noun in apposition.

Diagnosis. Easily distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by distinctive prolatero-ventral process on male palpal femur (Fig. 481); also by shape of procursus (distally not curved toward ventrally; Fig. 554) and male cheliceral armature (cone-shaped hairs small, short distal apophyses with only 1-4 modified hairs each, Fig. 555); female not easily distinguished from similar species (e.g., *S. bioko*, *S. etome*).

Male (holotype). Total body length 7.1, carapace width 1.8. Leg 1: 79.7 (18.4 + 0.8 + 18.1 + 39.1 + 3.3), tibia 2: 12.4, tibia 3: 8.4, tibia 4: 10.8; tibia 1 L/d: 105. Distance PME-PME 205 µm, diameter PME 170 µm, distance PME-ALE 70 µm, distance AME-AME 45 µm, diameter AME 160 µm. Carapace ochre-yellow with brown mark posteriorly and brown lateral margins; ocular area posteriorly light brown, clypeus with pair of brown marks at rim, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae (indistinct) and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 479-480, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified but with longer than usual hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 555, with lateral proximal apophyses and short distal apophyses; distal apophyses and frontal cheliceral face provided with several small modified (cone-shaped) hairs (Fig. 562). Palps as in Figs. 481-483; coxa unmodified; trochanter with wide retrolatero-ventral apophysis; femur proximally with ventral sclerotized ridge but without pocket, with long retrolateral apophysis and distinctive prolateral process; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with several strong hairs dorsally; procursus very simple, apparently without hinge between proximal and distal part (Figs. 553-554, 559-560); bulb with widened but weakly sclerotized proximal part of embolus (Figs. 556, 561). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each (Figs. 564, 566); gonopore with two epiandrous spigots (Fig. 563).

Variation. Tip of procursus slightly longer in males from near Bongoville. Distal cheliceral apophyses with variable number of cone-shaped hairs (1-4 each). Tibia 1 in 28 other males: 15.1-19.9 (mean 17.2).

Female. In general similar to male; clypeus variably dark (often darker than in males). Tibia 1 in 39 females: 12.5-15.6 (mean 14.0). Epigynum consisting of trapezoidal anterior plate slightly indented between anterior and posterior half and weakly sclerotized medially near posterior rim, and large posterior plate (Figs. 513-514, 557); internal genitalia as in Figs. 527, 558, 565, 568. Spinnerets as in male (Fig. 567).

Natural history. *S. ogooue* was found in well preserved forests (e.g. near Mohoba Mozeye; near Moudouma) and in disturbed forest patches (e.g. NE of Makokou; near Mouanda). Juveniles often built their webs quite freely among the vegetation but the large webs of adults were mainly built among large tree buttresses; as a result, adult

specimens were difficult to find in forests where the large trees were missing (e.g. near Tébé; at Lekoni River). At Mayebout, *S. ogooue* was found to share the forest with the superficially similar *S. mayebout*. While *S. mayebout* was rather found in hollow trees and cavities in the ground, *S. ogooue* was collected among tree buttresses. Strategies to avoid predation seemed to vary among localities: in the forests near Bongoville and Moudouma, the spiders fled extremely rapidly at the slightest disturbance, making capture very difficult; at the entrance to the Pahon Pira cave near Lastoursville they just vibrated and were easy to catch.

Distribution. Known from several localities in eastern Gabon (Fig. 468).

Smeringopina bioko new species

Figs. 484-488, 515-516, 528, 569-574

Type. ♂ holotype from Equatorial Guinea, Bioko, 5 km W Luba (3°27.9'N, 8°31.3'E), cacao plantation with fig trees, 12.-14.x.1998 (D.K. Dabney, D. Ubick), in CAS.

Other material examined. EQUATORIAL GUINEA: *Bioko*: 5 km W Luba, same data as holotype, 2♂3♀ 22 juvs. in CAS. Moca (3°21.8'N, 8°39.9'E), ~1400 m a.s.l., at night, 4.-9.x.1998 (D.K. Dabney, D. Ubick), 1♂ in CAS. Pico Basilé (3°41.7'N, 8°52.3'E), ~700 m a.s.l., at night, 17.x.1998 (D.K. Dabney, D. Ubick), 3♀ 1 juv. in CAS. Punta Beecrof (3°43.3'N, 8°39.7'E), 18.x.1998 (M. Boko *et al.*), 2♀ in CAS; same data, at night, D.K. Dabney & D. Ubick leg., 1♂4♀ 3 juvs. in CAS.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by distinctive frontal position of distal male cheliceral apophyses (Fig. 571), distinctive small process ventrally on procursus (Fig. 569), retrolateral apophysis on male palpal femur directed toward ventrally, and anterior epigynal plate bent in lateral view (anterior part flat, posterior part strongly protruding; Fig. 516).

Male (holotype). Total body length 6.4, carapace width 1.5. Leg 1: 57.8 (13.6 + 0.7 + 12.8 + 27.6 + 3.1), tibia 2: 8.9, tibia 3: 6.3, tibia 4: 8.3; tibia 1 L/d: 90. Distance PME-PME 205 µm, diameter PME 150 µm, distance PME-ALE 70 µm, distance AME-AME 25 µm, diameter AME 125 µm. Carapace ochre-yellow with brown mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus distally brown, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 484-485, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified except longer than usual hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 571, with lateral proximal apophyses and distal apophyses in distinctive frontal position, the latter provided with several modified (cone-shaped) hairs. Palps as in Figs. 486-488; coxa unmodified; trochanter with relatively long retrolatero-ventral apophysis; femur proximally with ventral sclerotized ridge but apparently without pocket, with retrolateral apophysis directed toward ventrally, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with very indistinct hinge dividing proximal from distal part, with small ventral process, with pointed and sclerotized tip (Figs. 569-570); bulb with widened but weakly sclerotized proximal part of embolus (Fig. 572). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Number of modified hairs frontally on male chelicerae slightly variable. Tibia 1 in 4 other males: 13.6, 14.5, 16.0, 16.0.

Female. In general similar to male; clypeus with shorter hairs; sternum and clypeus variably dark. Tibia 1 in 10 females: 10.7-13.3 (mean 12.3). Epigynum relatively small, consisting of trapezoidal anterior plate bent in lateral view (anterior part flat, posterior part strongly protruding) and large posterior plate (Figs. 515-516); internal genitalia as in Figs. 528 and 574.

Distribution. Known from several localities on Bioko Island, Equatorial Guinea (Fig. 468).

Smeringopina etome new species

Figs. 489-493, 517-518, 529, 575-580, 609-614

Smeringopus africanus Thorell (misidentification): Simon 1907: 249-250.

Type. ♂ holotype from Cameroon, Southwest Region, Fako Div., Limbe Subdiv., 1.4 km NE Etome (4°03.0'N, 9°07.5'E), ~400 m a.s.l., 13.-19.i.1992 (Larcher, Hormiga, Coddington, Griswold, Wanzie), in CAS.

Other material examined. CAMEROON: *Southwest Region*: Fako Div., Limbe Subdiv., 1.4 km NE Etome, same data as holotype, 4♂6♀ in CAS; same data, 12♂22♀ 1 juv. (2 vials) in USNM; same locality but 4°02'N, 9°07'E, 11.i.1992 (Hormiga, Larcher), 1♂1♀ in USNM. Mamfe [5°45.0'N, 9°18.6'E], 7.-11.i.1949 (B. Malkin), 1♂1♀ in CAS. Buea [4°09.0'N, 9°13.9'E], 1902 (L. Fea), 1♂1♀ in MSNG [this is presumably the material identified by Simon (1907) as *Smeringopus africanus*, even though he mentioned only the male specimen].

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by distinctive male cheliceral apophyses (directed slightly upwards rather than downwards; Figs. 578, 609). Females are not easily distinguished from similar species: anterior epigynal plate straight in lateral view but strongly protruding toward posteriorly (Fig. 518; similar in *S. bwiti* which differs by presence of transversal light element ventrally on abdomen).

Male (holotype). Total body length 7.0, carapace width 1.6. Leg 1: 66.8 (15.5 + 0.7 + 14.9 + 32.5 + 3.2), tibia 2: 10.5, tibia 3: 7.3, tibia 4: 9.5; tibia 1 L/d: 96. Distance PME-PME 220 µm, diameter PME 160 µm, distance PME-ALE 70 µm, distance AME-AME 45 µm, diameter AME 140 µm. Carapace ochre-yellow with brown triangular mark posteriorly and brown lateral margins; ocular area slightly darker, clypeus with pair of brown marks distally, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 489-490, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified except longer than usual hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 578, with distinctive apophyses directed slightly upwards and carrying proximally the lateral proximal apophyses, the former provided with several modified (cone-shaped) hairs, one pair of modified hairs close to fang joints. Palps as in Figs. 491-493; coxa unmodified; trochanter with retrolatero-ventral apophysis; femur proximally with ventral sclerotized ridge but apparently without pocket, with retrolateral apophysis, without prolateral modification; prolateral femur-patella joint shifted toward ventrally (though not extremely); tarsus with some stronger hairs dorsally; procursus with fairly distinct hinge dividing proximal from distal part, with slightly rounded sclerotized tip (Figs. 575-576); bulb with widened but weakly sclerotized proximal part of embolus (Fig. 577). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with seven spigots each (Fig. 612); gonopore with two epiandrous spigots (Fig. 611).

Variation. Distinctive cheliceral apophyses slightly longer in male from Mamfe. Tibia 1 in 12 other males: 15.3-18.9 (mean 16.9).

Female. In general similar to male; clypeus with shorter hairs and variably dark. Tibia 1 in 21 females: 11.7-14.7 (mean 13.2). Epigynum relatively small, consisting of semicircular anterior plate straight in lateral view but strongly protruding toward posteriorly, large posterior plate (Figs. 517-518, 614); internal genitalia as in Figs. 529 and 580. ALS as in male (Fig. 613).

Distribution. Known from three localities in southwestern Cameroon (Fig. 468).

Smeringopina africana (Thorell, 1899)

Figs. 494-498, 519-520, 530, 581-586

Smeringopus africanus Thorell 1899: 21-22 (♀).
Smeringopina africana: Kraus 1957: 236, figs. 43-45 (♀).
Misidentification: Simon (1907); see *S. etome* n. sp. above.

Types. ♀ lectotype (designated by Kraus 1957) from Cameroon, no further locality data, 1891 (Y. Sjöstedt), in

NHRS (284b), examined. Two probably misidentified juvenile (subadult male) paralectotypes (see Note below) from Cameroon, Kitta [4°39'N, 8°58.8'E], 1891 (Y. Sjöstedt), in NHRS (284a), examined.

Note. Considering the distributions of closely related species whose juveniles cannot be distinguished from those of *S. africana* (*S. etome*, *S. simplex*, *S. camerunensis*; Fig. 486), it seems quite probable that the juvenile paralectotypes are not conspecific with the female lectotype.

Other material examined. CAMEROON: *South Region*: between Kribi and Campo, "site 1" (2°42.2'N, 9°51.8'E), 10 m a.s.l., near ground, 10.iv.2009 (B.A. Huber), 5♂10♀ in ZFMK (Ar 10276); same data, 3♀ 2 juvs. in pure ethanol, in ZFMK (Cam 83). "Campo 2" [near Campo; 2°20'N, 9°52'E], forest, by hand, 11.iii.2004 (R. Jocqué), 1♂ in MRAC (214959).

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by shape of pointed procursus (Figs. 581-582; similar *S. bioko* but without proximal ventral process), shapes of male cheliceral apophyses (Fig. 584; similar *S. camerunensis* but distal apophyses not rounded), and anterior epigynal plate with distinctive central projection in lateral view (Fig. 520; larger than in *S. camerunensis*; similar to *S. essotah* whose epigynum is very different in ventral view, compare Figs. 519 and 680).

Male (between Kribi and Campo). Total body length 7.2, carapace width 1.6. Leg 1: 74.6 (17.1 + 0.7 + 16.7 + 36.9 + 3.2), tibia 2: 10.9, tibia 3: 7.7, tibia 4: 10.4; tibia 1 L/d: 114. Distance PME-PME 175 µm, diameter PME 150 µm, distance PME-ALE 70 µm, distance AME-AME 30 µm, diameter AME 135 µm. Carapace ochre-yellow with brown mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus distally brown, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 494-495, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified except longer than usual hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 584, with lateral proximal apophyses and distal apophyses with median process, distal apophyses and frontal cheliceral face provided with several modified (cone-shaped) hairs. Palps as in Figs. 496-498; coxa unmodified; trochanter with retrolatero-ventral apophysis; femur proximally with ventral sclerotized ridge, without or with very indistinct shallow pocket, with barely visible retrolateral hump, low dorsal process proximally, without prolateral modification; prolateral femur-patella joint shifted toward ventrally (though not extremely); tarsus with some stronger hairs dorsally; procursus without or with extremely indistinct hinge between proximal and distal part, with pointed sclerotized tip (Figs. 581-582); bulb with widened but weakly sclerotized proximal part of embolus (Fig. 583). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Number of modified hairs frontally on male chelicerae slightly variable (especially on frontal face: about 2-6). Tibia 1 in four other males: 14.0, 14.5, 14.7, 16.3.

Female. In general similar to male; clypeus with shorter hairs; clypeus variably dark. Tibia 1 in 10 females: 10.7-13.3 (mean 11.5). Epigynum relatively small, consisting of trapezoidal anterior plate with distinct central projection and large posterior plate (Figs. 519-520, 585); internal genitalia as in Figs. 530 and 586. The lectotype is in fair condition; tibia 1 missing; epigynal projection even more distinct than in newly collected specimens (cf. fig. 44 in Kraus 1957).

Natural history. At "site 1" between Kribi and Campo, this species was found together with the superficially very similar *S. kribi*. Both seemed to occupy the same microhabitat, i.e. sheltered spaces close to the ground.

Distribution. Known from two localities in southwestern Cameroon (apart from unspecified type locality; Fig. 468).

Smeringopina simplex Kraus, 1957

Figs. 15-16, 499-503, 521-522, 531, 587-602

Smeringopina simplex Kraus 1957: 237-240, figs. 66-69, 72.

Types. ♂ holotype and 1♂1♀ paratypes from Cameroon, Bakossi Mountains [~4°49'N, 9°42'E], "Esong" or "Esosung", vend. 10.iii.1913 (C. Räthke), in ZMH (holotype, ♀ paratype) and SMF (♂ paratype, 9815/1), examined.

Other material examined. CAMEROON: *Southwest Region*: Mt. Koupé above Nyasoso (4°49.6'N, 9°41.1'E), ~1600 m a.s.l., near ground, 22.-23.iv.2009 (B.A. Huber), 26♂19♀ (2 vials) in ZFMK (Ar 10277-78); same data, 1♂2♀ (2 vials) in pure ethanol, in ZFMK (Cam 93, 148); same locality, forest at 4°50'N, 9°41'E, 800-1200 m a.s.l., 16.-19.ii.1992 (Griswold, Scharff, Wanzie, Larcher, Masongo), 2♀ 10 juvs. in USNM.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by shape of pointed procursus (with distinctive pointed process ventrally; Figs. 587-588), shapes of male cheliceral apophyses (Fig. 589; similar to *S. bwiti* but distal apophyses directed more downwards), and anterior epigynal plate strongly protruding and weakly sclerotized in posterior half (Figs. 521-522; similar *S. bioko*).

Male (Mt. Koupé). Total body length 8.0, carapace width 2.0. Leg 1: 81.1 (18.9 + 0.8 + 18.5 + 39.3 + 3.6), tibia 2: 13.2, tibia 3: 9.5, tibia 4: 12.3; tibia 1 L/d: 91. Distance PME-PME 240 µm, diameter PME 185 µm, distance PME-ALE 90 µm, distance AME-AME 35 µm, diameter AME 180 µm. Carapace ochre-orange with brown mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus with pair of brown marks at rim, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 499-500, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses' (Fig. 593); clypeus unmodified except longer than usual hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 589, with lateral proximal apophyses and distal apophyses; distal apophyses and frontal cheliceral face provided with several modified (cone-shaped) hairs (Figs. 594-595). Palps as in Figs. 501-503, 596, 599; coxa unmodified; trochanter with ventral apophysis; femur proximally with ventral sclerotized ridge but without pocket, with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint shifted toward ventrally (though not extremely); tarsus with some stronger hairs dorsally (Fig. 597); procursus with very indistinct hinge between proximal and distal part, with pointed sclerotized tip and small pointed process ventrally (Figs. 587-588); bulb with widened but weakly sclerotized proximal part of embolus (Fig. 590). Legs without spines and curved hairs, with few vertical hairs (many hairs missing), retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with seven spigots each (Fig. 600): gonopore with two epiandrous spigots (Fig. 598).

Variation. Tibia 1 in 16 other males from Mt. Koupé: 14.0-17.6 (mean 16.2). The male types are very bleached, legs partly broken or missing, right palp of holotype detached; tibia 1 in holotype: 16.7, missing in paratype.

Female. In general similar to male; clypeus with shorter hairs and variably dark. Tibia 1 in 18 females: 10.5-13.3 (mean 12.4). Epigynum with roughly triangular anterior plate, in posterior half strongly protruding and weakly sclerotized (Figs. 521-522, 602), often with one or two scars in membranous posterior area (Fig. 521), with large posterior plate; internal genitalia as in Figs. 531 and 592. The female paratype is in fair condition; tibia 1 missing.

Natural history. On Mt. Koupé, this species was found to be common in the well preserved forest, mainly among tree buttresses and rocks along a brook, but sometimes even among vegetation. The usual dome-shaped webs were often shared with small nematocerous flies.

Most females (15 of 20) had one or two scars in the membranous part of the anterior genital plate. This might be related to the pointed process ventrally on the procursus and might thus constitute a case of copulatory genital damage. There seems to be a tendency for scars to occur in larger females (small sample size).

Distribution. Known from two localities (type locality and very nearby locality) in southwestern Cameroon (Fig. 468).

Smeringopina bwiti new species

Figs. 12, 504-508, 523-524, 532, 603-608, 615-620

Type. ♂ holotype from Gabon, Ngounié, near Moulandoufouala (1°38.1'S, 10°42.5'E), 110 m a.s.l., forest along road, 27.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10279).

Other material examined. GABON: *Ngounié*: near Moulandoufouala: same data as holotype, 6♂6♀ 1 juv. in ZFMK (Ar 10280); same data, 1 juv. in pure ethanol, in ZFMK (Gab 187**)**. *Moyen-Ogooué*: S Lambaréné near Tchad (0°58.1'S, 10°22.7'E), 165 m a.s.l., forest, 27.viii.2011 (B.A. & S.R. Huber), 5♂1♀ in ZFMK (Ar 10281).

Etymology. Named derived from bwiti, a belief system that incorporates animism, ancestor worship, and Christianity, practiced by the Babongo and Mitsogo peoples of Gabon; noun in apposition.

Diagnosis. Easily distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by distinctive dorsal process on procursus (Figs. 604, 615-617), membranous 'wings' along second half of embolus (Fig. 607), and by transversal light element ventrally on abdomen (Fig. 523); also by modified male clypeus (similar to *S. djidji* but modified hairs on distinct humps); by shapes of male cheliceral apophyses (Fig. 605; similar *S. simplex* but distal apophyses directed more forward), and anterior epigynal plate straight in lateral view (Fig. 524; similar *S. etome*).

Male (holotype). Total body length 6.5, carapace width 1.8. Leg 1: 76.5 (18.0 + 0.8 + 17.5 + 36.7 + 3.5), tibia 2: 11.7, tibia 3: 7.7, tibia 4: 10.0; tibia 1 L/d: 104. Distance PME-PME 210 µm, diameter PME 160 µm, distance PME-ALE 70 µm, distance AME-AME 35 µm, diameter AME 160 µm. Carapace ochre with brown mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus lower half brown, sternum frontally dark brown, posteriorly ochre-orange; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 504-505, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus with pair of distinct humps, each with two small modified (cone-shaped) hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 605 and 620, with lateral proximal apophyses and distal apophyses; distal apophyses and frontal cheliceral face provided with several modified (cone-shaped) hairs (Fig. 619). Palps as in Figs. 506-508; coxa unmodified; trochanter with retrolatero-ventral apophysis; femur proximally with ventral sclerotized ridge but without pocket, with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint shifted toward ventrally (though not extremely); tarsus with some stronger hairs dorsally; procursus without (or with extremely indistinct) hinge between proximal and distal part, with distinctive dorsal process (Figs. 603-604, 617); bulb with widened but weakly sclerotized proximal part of embolus and membranous 'wings' along second half of embolus (Fig. 607). Legs without spines and curved hairs, with few vertical hairs (many hairs missing), retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. Gonopore apparently with two epiandrous spigots (not confirmed by SEM).

Variation. Clypeus humps variably distinct, with 1-3 modified hairs each; dorsal process on procursus slightly variable in shape (Figs. 615-617), also among specimens of same locality; sternum variably dark (entirely ochre-orange to entirely brown or as in type). Tibia 1 in 11 other males: 15.7-20.9 (mean 18.0).

Female. In general similar to male; clypeus unmodified, variably dark. Tibia 1 in 7 females: 13.5-15.6 (mean 14.2). Epigynum consisting of trapezoidal anterior plate straight in lateral view and large posterior plate (Figs. 523-524, 606); internal genitalia as in Figs. 532, 608, 618.

Distribution. Known from two localities in western Gabon (Fig. 468).

Smeringopina luki **new species**

Figs. 533-540, 621-626

Type. ♂ holotype from Congo D.R., Bas Congo Province, Luki Forest Reserve (5°37.3'S, 13°05.9'E), central zone, by hand, 26.-27.ix.2007 (W. Hubau), in MRAC (222155 part).

Other material examined. CONGO D.R.: *Bas Congo*: Luki Forest Reserve, 1♀ together with holotype; same data, 1♀ in MRAC (222232); same locality, along trail near guest house, by hand, 18.-19.ix.2007 (W. Hubau), 1♂ in MRAC (222141); same locality, primary rainforest, by hand, 20.ix.2007 (D. de Bakker, J.P. Michiels, W. Hubau), 1♀ in MRAC (223577). Weka [5°42.1'S, 12°35.4'E], viii.1937 (E. Dartevelle), 1♀ in MRAC (26854).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, simple unbranched procursus) by distinctively wide procursus (Figs. 621-622), sclerotized rod-shaped embolus (Fig. 624), and medially protruding rim of anterior epigynal plate (Figs. 539, 625).

Male (holotype). Total body length 7.8, carapace width 1.9. Leg 1: 83.6 (18.9 + 0.8 + 18.7 + 41.3 + 3.9), tibia 2 missing, tibia 3: 8.7, tibia 4: 11.1; tibia 1 L/d: 101. Distance PME-PME 175 µm, diameter PME 185 µm, distance PME-ALE 70 µm, distance AME-AME 60 µm, diameter AME 160 µm. Carapace ochre-yellow with brown

triangular mark posteriorly and brown lateral margins, whitish behind ocular area; ocular area brown, clypeus brown in lower half, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 534-535, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified but with longer than usual hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 623, with lateral proximal apophyses and distal apophyses, the latter and frontal cheliceral face provided with several small modified (cone-shaped) hairs. Palps as in Figs. 536-538; coxa unmodified; trochanter with retrolatero-ventral apophysis; femur proximally with ventral sclerotized ridge, without or with very indistinct shallow pocket, with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint strongly shifted toward ventrally; tarsus with several strong hairs dorsally; procursus very wide, with very indistinct hinge between proximal and distal part (Figs. 621-622); bulb with rod-shaped, sclerotized embolus (Fig. 624). Legs without spines and curved hairs, with few vertical hairs (most hairs missing), retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in second male: 18.4.

Female. In general similar to male. Tibia 1 in 2 females: 14.0, 16.7 (missing in other females). Epigynum consisting of large anterior plate with distinctively protruding rim, and arc-shaped posterior plate (Figs. 539-540); internal genitalia as in Figs. 533 and 626.

Distribution. Known from two localities in Bas-Congo Province, Congo D.R. (Fig. 468).

beninensis group

Smeringopina ebolowa new species

Figs. 6, 628-632, 678-679, 694, 716-737

Smeringopina Cam61: Dimitrov, Astrin & Huber 2013 (DNA data).

Type. ♂ holotype from Cameroon, South Region, near Ebolowa (2°54.9'N, 11°08.3'E), 620 m a.s.l., near ground, 11.-12.iv.2009 (B.A. Huber), in ZFMK (Ar 10282).

Other material examined. CAMEROON: *South Region*: near Ebolowa, same data as holotype, 8♂6♀ in ZFMK (Ar 10283); same data, 4♀ 10 juvs. in pure ethanol, in ZFMK (Cam 102). Near Ebolowa, Nkoetye (2°51.4'N, 11°21.7'E), 700 m a.s.l., near ground, 12.iv.2009 (B.A. & J.C. Huber), 5♂3♀ in ZFMK (Ar 10284); same data, 1♂1♀ 1 juv. in pure ethanol, in ZFMK (Cam 142). Near Kribi (2°54.0'N, 9°54.4'E), 20 m a.s.l., near ground, 9.iv.2009 (B.A. Huber), 4♂13♀ in ZFMK (Ar 10285); same data, 2♀ 5 juvs. in pure ethanol, in ZFMK (Cam 133**)**.

Assigned tentatively: CAMEROON: *Centre Region*: forest fragment in Yaoundé (3°48.8'N, 11°32.6'E), ~700 m a.s.l., under large log, 13.iv.2009 (B.A. & J.C. Huber), 2♂ in ZFMK (Ar 10286); same data, 2 juvs. in pure ethanol, in ZFMK (Cam 99). Yaoundé, Zenker leg., no further data, 1♂ in ZMB. Yaoundé, Mt. Febe, 900 m a.s.l., 21.ii.1981 (R. Bosmans), 2♀ 2 juvs. in MRAC (167985). Near Yaoundé, Mt. Kala (3°51.0'N, 11°20.3'E), 730 m a.s.l., near ground, 14.iv.2009 (B.A. Huber), 1♂1♀ in ZFMK (Ar 10287); same data, 1♀ 2 juvs. in pure ethanol, in ZFMK (Cam 103**)**. *Littoral Region*: near Edéa, Koukoué (3°41.2'N, 10°06.4'E), 50 m a.s.l., near ground, 8.iv.2009 (B.A. & J.C. Huber), 2♂1♀ 2 juvs. in ZFMK (Ar 10288); same data, 2♀ 7 juvs. in pure ethanol, in ZFMK (Cam 112**)**. Unidentified and unknown localities: Cameroon, Ercalera(?), E. Simon coll. number 22016, no further data, 1♂1♀ in MNHN (Ar 10470). Cameroon, no further locality data, 9.vi.1939 (J. Félix), 1♂ in MNHN.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from most known congeners by modified male clypeus (slightly projecting rim set with modified (cone-shaped) hairs: Figs. 725, 731); from species with similar clypeus (*S. simintang*, *S. kribi*, *S. bwiti*) by shape of procursus (massive, with short distal apophysis, without ventral branch, Figs. 716-717); also by relatively large modified hairs on male chelicerae (Fig. 722; similar only in *S. mayebout*), and parallel ventral ridges on procursus prolaterally (visible only after detachment of bulb; Fig. 716). Female not easily distinguished from similar species with roughly triangular anterior epigynal plate evenly curved in lateral view (especially *S. belinga*).

Male (holotype). Total body length 6.8, carapace width 1.7. Leg 1: 78.0 (17.6 + 0.7 + 17.7 + 38.7 + 3.3), tibia

2: 12.1, tibia 3: 8.4, tibia 4: 10.9; tibia 1 L/d: 100. Distance PME-PME 170 µm, diameter PME 170 µm, distance PME-ALE 90 µm, distance AME-AME 35 µm, diameter AME 160 µm. Carapace ochre-yellow with brown mark posteriorly and brown lateral margins; ocular area brown posteriorly, clypeus with pair of dark marks in lower half, sternum dark brown; legs ochre-yellow, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 628-629, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus slightly projecting, with about 12 modified (cone-shaped) hairs near rim (Figs. 725, 731); deep thoracic pit and pair of shallow furrows diverging behind pit (Fig. 726). Chelicerae as in Figs. 722 and 732, with lateral proximal apophyses and large distal apophyses, the latter and frontal cheliceral face provided with very large modified (cone-shaped) hairs (Figs. 733-735). Palps as in Figs. 630-632; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge (Fig. 727), with small retrolateral apophysis, without prolateral projection; prolateral femur-patella joint very prominent and strongly shifted toward ventrally (hidden by bulb in Fig. 630); tarsus with some stronger hairs dorsally (Fig. 730); procursus with distinct hinge between proximal and distal part, with distinctive ridges prolaterally (visible only after detachment of bulb; Fig. 716); bulb with heavily sclerotized proximal part of embolus (Figs. 718, 728). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. Gonopore with two epiandrous spigots (Fig. 736).

Variation. Males from South Region all very similar to holotype, but with slight variation in number of modified hairs on male chelicerae and clypeus (up to about 20) and in size and distinctiveness of ridges and teeth on sclerotized proximal part of embolus. Males from Centre Region and Littoral Region show additional slight differences and are therefore assigned tentatively: shapes of ventro-distal apophyses on procursus slightly different (retrolateral apophysis shorter and less pointed; prolateral apophysis longer); dorso-distal sclerotized part of procursus either stronger (Yaoundé area) or less developed (Koukoué); prolateral ridges of procursus fewer but stronger in males from Yaoundé area; modified hairs near median line of male chelicerae more widely spaced in males from Yaoundé area; entire procursus either slightly more slender (Koukoué) or shorter ("Ercalera"); cheliceral apophyses more slender in males from Yaoundé area. Even more pronounced variation occurs in sclerotized proximal part of embolus (Figs. 719-721). Tibia 1 in 15 other males (all localities combined): 13.9-18.3 (mean 16.4).

Female. In general similar to male but clypeus unmodified; clypeus variably dark; posterior median light line ventrally on abdomen absent. Tibia 1 in 22 females: 10.8–14.0 (mean 12.9). Epigynum large, consisting of evenly curved (in lateral view), roughly triangular anterior plate and large posterior plate (Figs. 678-679, 723, 737); internal genitalia as in Figs. 694 and 724.

Natural history. *S. ebolowa* was found in well preserved forests (e.g. in a small canyon near Ebolowa) and in disturbed forest patches (e.g. in man-made holes in the ground in disturbed forest fragments near Koukoué and Nkoetye). The large webs were built in sheltered spaces near the ground.

Distribution. Known from several localities in southwestern Cameroon (Fig. 627).

Smeringopina essotah **new species**

Figs. 7, 633-637, 680-681, 695, 738-743

Type. ♂ holotype from Cameroon, Southwest Region, near Dschang, Essotah (5°25.5'N, 9°54.7'E), 1600 m a.s.l., near ground, under and among rocks, 21.iv.2009 (B.A. Huber), in ZFMK (Ar 10289).

Other material examined. CAMEROON: *Southwest Region*: near Dschang, Essotah, same data as holotype, 3♂14♀ in ZFMK (Ar 10290); same data, 6 juvs. in pure ethanol, in ZFMK (Cam 97**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part) by combination of unmodified clypeus, shape of massive procursus (distinctive distal elements, Figs. 738-739) and median projection on epigynum (Fig. 681; similar *S. africana* whose epigynum is very different in ventral view, compare Figs. 519 and 680).

Male (holotype). Total body length 7.8, carapace width 2.0. Leg 1: 85.9 (19.7 + 0.8 + 19.2 + 42.1 + 4.1), tibia

2: 13.3, tibia 3: 9.5, tibia 4: 12.1; tibia 1 L/d: 99. Distance PME-PME 210 µm, diameter PME 175 µm, distance PME-ALE 90 µm, distance AME-AME 45 µm, diameter AME 160 µm. Carapace ochre-yellow with brown mark posteriorly and brown lateral margins; ocular area brown, clypeus with pair of dark marks laterally, sternum dark brown; legs ochre-yellow, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 633-634, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified except slightly longer hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 740, with lateral proximal apophyses and large distal apophyses, the latter and frontal cheliceral face provided with modified (cone-shaped) hairs. Palps as in Figs. 635-637; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge (Fig. 637), with very tiny retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with distinct hinge between proximal and distal part, complex distally (Figs. 738-739); bulb with widened and heavily sclerotized proximal part of embolus (Fig. 741). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in 3 other males: 16.9, 17.9, 18.7.

Female. In general similar to male but clypeus often darker; clypeus with shorter hairs. Tibia 1 in 12 females: 12.8–15.1 (mean 14.0); light median posterior line ventrally on abdomen variably distinct. Epigynum large, consisting of wide, roughly triangular anterior plate with median projection and large posterior plate (Figs. 680-681, 742); internal genitalia as in Figs. 695 and 743 (pore plates hidden in deep folds behind lateral sclerites).

Natural history. *S. essotah* was collected from large webs built under and among huge rocks in a well preserved forest. When disturbed, the spiders swiftly ran to the rock wall where they were barely visible among the mosses.

Distribution. Known from type locality only (Fig. 627).

Smeringopina mayebout **new species**

Figs. 638-642, 682-683, 696, 744-749

Type. ♂ holotype from Gabon, Ogooué-Ivindo, Monts de Belinga, forest near Mayebout (1°06.7'N, 13°06.6'E), 500 m a.s.l., 13.-14.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10291).

Other material examined. GABON: *Ogooué-Ivindo*: Monts de Belinga, forest near Mayebout, same data as holotype, 2♂6♀ 1 juv. in ZFMK (Ar 10292); same data, 1 juv. in pure ethanol (identity uncertain, possibly *S. ogooue*), in ZFMK (Gab 195**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part) by combination of unmodified clypeus, shape of massive procursus (with ventro-distal apophysis; entire procursus similar *S. simintang* but more slender, Figs. 744-745), sclerotized proximal part of embolus with distinct prolateral projection (Figs. 641, 747), relatively large modified hairs on male chelicerae (Fig. 746; similar only in *S. ebolowa*), and slightly angular anterior epigynal plate (in lateral view; Fig. 683).

Male (holotype). Total body length 7.5, carapace width 2.0. Leg 1: 73.8 (17.3 + 0.8 + 16.9 + 35.5 + 3.3), tibia 2: 11.5, tibia 3: 7.9, tibia 4: 10.5; tibia 1 L/d: 87. Distance PME-PME 210 µm, diameter PME 195 µm, distance PME-ALE 90 µm, distance AME-AME 45 µm, diameter AME 175 µm. Carapace ochre-yellow with brown mark posteriorly and wide brown lateral margins; ocular area brown, clypeus lower half darkened, sternum dark brown; legs light brown, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 638-639, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified except slightly longer hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 746, with lateral proximal apophyses and strong distal apophyses, the latter and frontal cheliceral face provided with large modified (cone-shaped) hairs. Palps as in Figs. 640-642; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge, with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly

shifted toward ventrally (hidden by bulb in Fig. 640); tarsus with some stronger hairs dorsally; procursus with distinct hinge between proximal and distal part, distally complex (Figs. 744-745); bulb with widened and heavily sclerotized proximal part of embolus with distinct prolateral projection (Figs. 641, 747). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in two other males: 15.5, 16.5.

Female. In general similar to male. Tibia 1 in 5 females: 12.3–13.5 (mean 13.1). Epigynum large, consisting of wide, roughly triangular anterior plate slightly angular in lateral view and large posterior plate (Figs. 682-683); internal genitalia as in Figs. 696 and 749.

Natural history. *S. mayebout* was found to share the forest at Mayebout with the superficially similar and widely distributed *S. ogooue*. While *S. mayebout* was rather found in hollow trees and cavities in the ground, *S. ogooue* was collected among tree buttresses.

Distribution. Known from type locality only (Fig. 627).

Smeringopina simintang **new species**

Figs. 643-647, 684-685, 697, 750-755

Type. ♂ holotype from Gabon, Ogooué-Ivindo, Ivindo N.P. near Simintang (0°32.2'N, 12°41.3'E), 545 m a.s.l., forest, 16.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10293).

Other material examined. GABON: *Ogooué-Ivindo*: Ivindo N.P. near Simintang, same data as holotype, 1♂4♀ in ZFMK (Ar 10294); same data, 4 juvs. in pure ethanol, in ZFMK (Gab 217**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part) by shape of massive procursus (with ventro-distal apophysis; entire procursus similar *S. mayebout* but wider and shorter, Figs. 750-751), sclerotized proximal part of embolus with distinctive retrolatero-ventral projection (Fig. 645), modified hairs on male chelicerae (Fig. 752; smaller than in *S. mayebout* and *S. ebolowa*), and strongly protruding anterior epigynal plate (in lateral view; Fig. 685). From most congeners (except *S. ebolowa*, *S. kribi*, *S. bwiti*) also by modified male clypeus (slightly projecting rim set with small modified, cone-shaped hairs).

Male (holotype). Total body length 7.0, carapace width 1.9. Leg 1: 73.7 (17.3 + 0.8 + 16.7 + 35.6 + 3.3), tibia 2: 11.2, tibia 3: 7.7, tibia 4: 10.4; tibia 1 L/d: 94. Distance PME-PME 185 µm, diameter PME 195 µm, distance PME-ALE 105 µm, distance AME-AME 45 µm, diameter AME 175 µm. Carapace ochre-yellow with brown mark posteriorly and wide brown lateral margins; ocular area brown posteriorly, clypeus lower half darkened, sternum dark brown with some light spots; legs light brown, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 643-644, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus with about six small modified (cone-shaped) hairs near rim; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 752, with lateral proximal apophyses and strong distal apophyses, the latter and frontal cheliceral face provided with modified (cone-shaped) hairs. Palps as in Figs. 645-647; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge, with tiny retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly shifted toward ventrally (hidden by bulb in Fig. 645); tarsus with some stronger hairs dorsally; procursus with distinct hinge between proximal and distal part and ventro-distal apophysis (Figs. 750-751); bulb with widened and sclerotized proximal part of embolus with heavily serrated dorsal ridge and distinct ventral projection (Figs. 645-647, 753). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in other male: 14.5.

Female. In general similar to male but clypeus unmodified. Tibia 1 in 4 females: 12.7, 12.7, 13.1, 14.0. Epigynum large, consisting of wide, roughly triangular anterior plate clearly protruding in lateral view and large posterior plate (Figs. 684-685, 754); internal genitalia as in Figs. 697 and 755.

Natural history. *S. simintang* adult specimens build large webs in large protected spaces near the ground. Such spaces are rare at the type locality, explaining the low number of specimens despite of considerable collecting effort.

Distribution. Known from type locality only (Fig. 627).

Smeringopina belinga **new species**

Figs. 10, 648-652, 686-687, 698, 756-777

Type. ♂ holotype from Gabon, Ogooué-Ivindo, Monts de Belinga (0°58.7'N, 13°11.5'E), 860 m a.s.l., at large rocks in forest, 13.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10295).

Other material examined. GABON: *Ogooué-Ivindo*: Monts de Belinga, same data as holotype, 6♂10♀ in ZFMK (Ar 10296); same data, 2 juvs. in pure ethanol, in ZFMK (Gab 203**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part) by combination of unmodified clypeus, shape of massive procursus (with simple distal projections dorsally and ventrally, Figs. 756-757), shape of sclerotized proximal part of embolus (Figs. 759, 763), and distribution of modified hairs on male chelicerae (Fig. 758). Female not easily distinguished from similar species with roughly triangular anterior epigynal plate evenly curved in lateral view (especially *S. ebolowa*).

Male (holotype). Total body length 7.5, carapace width 1.9. Leg 1: 70.9 (16.9 + 0.8 + 16.3 + 33.7 + 3.2), tibia 2: 11.3, tibia 3: 8.0, tibia 4: 10.7; tibia 1 L/d: 84. Distance PME-PME 210 µm, diameter PME 185 µm, distance PME-ALE 115 µm, distance AME-AME 60 µm, diameter AME 170 µm. Carapace ochre-yellow with brown mark posteriorly and wide brown lateral margins; ocular area brown, clypeus brown except below eyes, sternum dark brown; legs light brown, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 648-649, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified except slightly longer hairs; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 758 and 767, with lateral proximal apophyses and strong distal apophyses, the latter and frontal cheliceral face provided with many modified (cone-shaped) hairs (Fig. 768). Palps as in Figs. 650-652; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge (Fig. 765), with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with distinct hinge between proximal and distal part, with distinctive distal processes (Figs. 756-757, 762); bulb with widened and heavily sclerotized proximal part of embolus (Figs. 759, 763-764, 766), with unidentified opening proximally (Figs. 763, 766; not the sperm duct opening, cf. Fig. 764). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each (Fig. 771); gonopore with two epiandrous spigots (Fig. 770).

Variation. Tibia 1 in 5 other males: 14.9-18.0 (mean 16.6).

Female. In general similar to male. Tibia 1 in 11 females: 12.3–16.4 (mean 13.8). Clypeus sometimes entirely dark; posterior median light line ventrally on abdomen variably distinct. Epigynum large, consisting of wide, roughly triangular anterior plate evenly curved in lateral view and large posterior plate (Figs. 686-687, 761, 772); internal genitalia as in Figs. 698, 760, 773-774. Spinnerets as in male (Fig. 775).

Natural history. The specimens were common in large webs among and under large rocks in the forest by the road.

Distribution. Known from type locality only (Fig. 627).

Smeringopina beninensis Kraus, 1957
Figs. 653-657, 688-689, 699, 778-784

Smeringopina beninensis Kraus 1957: 236-237, figs. 59-63.

Types. ♂ holotype 1♀ paratype from Benin, locality not further specified, 1907 (Manger), in ZMH, examined.

Other material examined. BENIN: Niaouli (6°44'N, 2°08'E), 20.xi.2008 (S. Tchibozo), 1♂2♀ in ZFMK (Ar 10297).

NIGERIA: Agege, Lagos Colony [6°37.2'N, 3°19.8'E], 5.xii.1948 (B. Malkin), 2♂5♀ 6 juvs. in AMNH. Iseri, Lagos Colony [6°32.4'N, 3°15.0'E], 27.-30.xii.1948 (B. Malkin), 2♂6♀ 4 juvs. (2 vials) in CAS.

Diagnosis. Easily distinguished from known congeners by unique long median projection on male clypeus (Fig. 778); also by massive procursus with long distal apophysis (Figs. 779-780), by strong pointed projection of basal sclerotized part of embolus (Fig. 781), and by shape (longer than wide) and massive anterior protrusion of epigynum (Figs. 688-689, 783).

Male (Benin, Niaouli). Total body length 10.2, carapace width 2.1. Leg 1: 84.2 (19.3 + 0.8 + 19.2 + 41.3 + 3.6), tibia 2: 12.9, tibia 3: 8.9, tibia 4: 11.7; tibia 1 L/d: 99. Distance PME-PME 170 µm, diameter PME 205 µm, distance PME-ALE 90 µm, distance AME-AME 35 µm, diameter AME 185 µm. Carapace ochre-orange with brown triangular mark posteriorly, brown lateral margins, whitish around ocular area; ocular area posteriorly brown, clypeus only laterally darker, sternum dark brown; legs ochre-yellow, slightly darker rings subdistally on femora and in patella area; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 653-654, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus with long median projection carrying at its slightly bifid tip some modified (claw-shaped) hairs (Fig. 778); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 782, with lateral proximal apophyses and large distal apophyses, the latter and frontal cheliceral face provided with many modified (cone-shaped) hairs. Palps as in Figs. 655-657; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge, without prolateral and retrolateral projections; prolateral femur-patella joint very prominent and strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with distinct hinge between proximal and distal part, with distinctive long process distally (Figs. 779-780); bulb with heavily sclerotized proximal part of embolus with strong pointed projection (Fig. 781). Legs without spines and curved hairs, with few vertical hairs (many hairs missing), retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. Gonopore with two epiandrous spigots.

Variation. In most males (and in holotype) tip of clypeus projection not bifid. Tibia 1 in male from Agege: 19.9; missing in holotype (femur 1 in holotype: 18.9).

Female. In general similar to male but clypeus unmodified; sternum and clypeus variably dark. Tibia 1 in 8 females: 13.7–16.0 (mean 14.9); in paratype: 15.2. Epigynum large, consisting of long anterior plate with massive anterior protrusion carrying pair of small pointed projections and large posterior plate (Figs. 688-689, 783); internal genitalia as in Figs. 699 and 784.

Distribution. Known from southern Benin and southwestern Nigeria (Fig. 627).

Smeringopina kribi new species
Figs. 658-662, 690-691, 700, 785-790

Type. ♂ holotype from Cameroon, South Region, between Kribi and Campo, "site 2" (2°40.4'N, 9°51.4'E), 15 m a.s.l., near ground, 10.iv.2009 (B.A. Huber), in ZFMK (Ar 10298).

Other material examined. CAMEROON: *South Region*: between Kribi and Campo, same data as holotype, 1♂1♀ in ZFMK (Ar 10299); same data, 1♀ 1 juv. in pure ethanol, in ZFMK (Cam 89**)**. Between Kribi and Campo, "site 1" (2°42.2'N, 9°51.8'E), 10 m a.s.l., near ground, 10.iv.2009 (B.A. Huber), 1♂3♀ in ZFMK (Ar 10300); same data, 2♀ 2 juvs. in pure ethanol, in ZFMK (Cam 79**)**. 25 miles inland of Kribi [~2°49'N, 10°16'E], 27.vi.1907(?) (G.L. Bates), 1♂ in BMNH.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part, transversal light element ventrally on abdomen) by combination of: shape of massive procursus with pointed ventral branch (Figs. 785-786; ventral branch smaller than in *S. sahoue*); modified clypeus (with tiny cone-shaped hairs; similar to *S. ebolowa*, *S. simintang*, *S. bwiti*); shape of sclerotized proximal part of embolus (Fig. 788; similar to *S. sahoue*); distribution of modified hairs on male chelicerae (Fig. 787; similar to *S. sahoue*); absence of frontal projections on male chelicerae; and anterior epigynal plate evenly curved in lateral view (Fig. 691).

Male (holotype). Total body length 7.0, carapace width 1.7. Leg 1: 67.1 (15.9 + 0.7 + 15.3 + 32.0 + 3.2), tibia 2: 9.7, tibia 3: 6.8, tibia 4: 9.2; tibia 1 L/d: 86. Distance PME-PME 160 µm, diameter PME 195 µm, distance PME-ALE 70 µm, distance AME-AME 45 µm, diameter AME 170 µm. Carapace ochre-yellow with wide brown lateral margins and brown mark posteriorly connected with brown ocular area, clypeus brown except below eyes, sternum dark brown; legs light brown, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 658-659, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus with three small cone-shaped hairs on each side on barely elevated humps; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 787, with lateral proximal apophyses and long distal apophyses, the latter and frontal cheliceral face provided with several modified (cone-shaped) hairs. Palps as in Figs. 660-662; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge, with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with hinge between proximal and distal part, distal part with ventral branch (Figs. 785-786); bulb with widened and sclerotized proximal part of embolus (Fig. 788). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Number of cone-shaped hairs on clypeus variable (about 4-14). Tibia 1 in 3 other males: 16.7, 17.3, 19.3.

Female. In general similar to male but clypeus unmodified. Tibia 1 in 4 females: 11.9, 12.5, 13.5, 13.6. Epigynum large, consisting of wide, roughly triangular anterior plate evenly curved in lateral view and large posterior plate (Figs. 690-691, 789); internal genitalia as in Figs. 700 and 790.

Natural history. At "site 1" between Kribi and Campo, this species was found together with the superficially very similar *S. africana*. Both seemed to occupy the same microhabitat, i.e. sheltered spaces close to the ground.

Distribution. Known from three localities in southwestern Cameroon (Fig. 627).

Smeringopina sahoue **new species**

Figs. 13, 663-667, 692-693, 701, 791-809

Type. ♂ holotype from Gabon, Estuaire, forest near Sahoué, N Libreville (0°34.6'N, 9°20.4'E), 30 m a.s.l., 28.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10301).

Other material examined. GABON: *Estuaire*: forest near Sahoué, same data as holotype, 6♂9♀ in ZFMK (Ar 10302); same data, 3 juvs. in pure ethanol, in ZFMK (Gab 182).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part, transversal light element ventrally on abdomen) by combination of: shape of massive procursus with pointed ventral branch (Figs. 791-792; ventral branch larger than in *S. kribi*); unmodified male clypeus (in contrast to *S. kribi*); shape of sclerotized proximal part of embolus (Figs. 794, 798-800; similar to *S. kribi*); distribution of modified hairs on male chelicerae (Figs. 793, 801; similar to *S. kribi*); absence of frontal projections on male chelicerae; and anterior epigynal plate with small projection near rim in lateral view (Fig. 693).

Male (holotype). Total body length 8.0, carapace width 2.1. Leg 1: 79.7 (18.7 + 0.9 + 18.1 + 38.3 + 3.7), tibia 2: 11.9, tibia 3: 8.1, tibia 4: 10.9; tibia 1 L/d: 85. Distance PME-PME 170 µm, diameter PME 195 µm, distance PME-ALE 90 µm, distance AME-AME 45 µm, diameter AME 175 µm. Carapace ochre-yellow with wide brown

lateral margins and brown triangular mark posteriorly connected with brown ocular area, clypeus laterally brown, sternum ochre-orange; legs light brown, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 663-664, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified but hairs longer than usual; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 793 and 801, with lateral proximal apophyses and long distal apophyses, the latter and frontal cheliceral face provided with several modified (cone-shaped) hairs (Figs. 802, 806). Palps as in Figs. 665-667; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge, with very small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with hinge between proximal and distal part, distal part with ventral branch (Figs. 791-792, 797); bulb with widened and sclerotized proximal part of embolus (Figs. 794, 798-800). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each; gonopore with two epiandrous spigots (Fig. 805).

Variation. Sternum variably dark, in some males with dark frontal area and ochre-orange posterior and lateral part. Tibia 1 in 6 other males: 16.1-18.4 (mean 17.1).

Female. In general similar to male; clypeus with shorter hairs. Sternum in most females dark brown; some females with entirely dark clypeus. Tibia 1 in 9 females: 13.5-15.5 (mean 14.9). Epigynum large, consisting of wide, roughly triangular anterior plate with small projection near rim in lateral view and large posterior plate (Figs. 692-693, 795, 808); internal genitalia as in Figs. 701, 796, 809. ALS with eight spigots each (Fig. 807).

Natural history. At the type locality, *S. sahoue* was common and easily found between the buttresses of large trees.

Distribution. Known from type locality only (Fig. 627).

Smeringopina tchimbele **new species**

Figs. 14, 668-672, 702-704, 810-828

Type. ♂ holotype from Gabon, Estuaire, Monts de Cristal, between Tchimbélé and Kinguélé (0°33.8'N, 10°18.8'E), 520 m a.s.l., forest near river, 10.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10303).

Other material examined. GABON: *Estuaire*: Monts de Cristal, same data as holotype, 5♂9♀ in ZFMK (Ar 10304); same data, 5 juvs. in pure ethanol, in ZFMK (Gab 194**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part, transversal light element ventrally on abdomen) by male chelicerae (presence of frontal projections; shape of distal apophyses; distribution of modified hairs; Figs. 813-814; similar only in *S. bayaka* and *S. chaillu*), shape of bifid procursus (Figs. 810-811; similar to *S. bayaka*), unmodified male clypeus (in contrast to *S. kribi*), shape of sclerotized proximal part of embolus (Figs. 670-672, 812), and anterior epigynal plate bent in lateral view (anterior part flat, posterior part strongly protruding; Fig. 704).

Male (holotype). Total body length 7.6, carapace width 2.1. Leg 1: 82.4 (19.5 + 0.9 + 19.1 + 39.3 + 3.6), tibia 2: 12.8, tibia 3: 8.7, tibia 4: 11.2; tibia 1 L/d: 98. Distance PME-PME 220 µm, diameter PME 185 µm, distance PME-ALE 90 µm, distance AME-AME 55 µm, diameter AME 170 µm. Carapace ochre-yellow with brown lateral margins and brown triangular mark posteriorly connected with brown ocular area, clypeus brown except below eyes, sternum dark brown; legs light brown, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 668-669, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified but hairs longer than usual; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 813-814 and 821, with lateral proximal apophyses, short distal apophyses, and short frontal apophyses, distal and frontal apophyses and frontal cheliceral face provided with modified (cone-shaped) hairs (Fig. 822). Palps as in Figs. 670-672; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur

proximally with ventral pocket bordered retrolaterally by strong sclerotized ridge (Fig. 671), with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with hinge between proximal and distal part, distal part with ventral branch (Figs. 810-811, 818); bulb with widened and sclerotized proximal part of embolus (Figs. 812, 819-820). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with eight spigots each (Fig. 824); gonopore with two epiandrous spigots (Fig. 823).

Variation. Dorsal flap on sclerotized proximal part of embolus variably wide; sternum variably dark, in some males ochre-orange. Tibia 1 in 5 other males: 16.3-18.9 (mean 17.7).

Female. In general similar to male; clypeus with shorter hairs. Sternum in some females entirely dark brown, in others only frontally dark. Tibia 1 in 9 females: 14.8-16.3 (mean 15.3). Epigynum large, consisting of wide, roughly triangular anterior plate distinctively bent in lateral view (anterior part flat, posterior part strongly protruding; Figs. 703-704, 815, 826); internal genitalia as in Figs. 702, 816, 827. Spinnerets as in male (Fig. 825).

Natural history. *S. tchimbele* was collected in a well preserved forest along a river, among tree buttresses and in little pits and hollows.

Distribution. Known from type locality only (Fig. 627).

Smeringopina bayaka new species

Figs. 673-677, 705-707, 829-835

Type. ♂ holotype from Gabon, Moyen-Ogooué, near Ndjolé, "site 2" (0°05.9'S, 10°52.4'E), 140 m a.s.l., forest near brook, 11.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10305).

Other material examined. GABON: *Moyen-Ogooué*: near Ndjolé, same data as holotype, 3♂5♀ in ZFMK (Ar 10306); same data, 3 juvs. in pure ethanol, in ZFMK (Gab 227). Near Ndjolé, "site 1" (0°09.0'S, 10°40.0'E), 120 m a.s.l., forest near brook, 11.viii.2011 (B.A. & S.R. Huber), 1♀ in ZFMK (Ar 10307); same data, 4 juvs. in pure ethanol, in ZFMK (Gab 232).

Etymology. Named for the Bayaka (or Aka) pygmies in Cameroon and Gabon; noun in apposition.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part, transversal light element ventrally on abdomen) by male chelicerae (two pairs of frontal projections; slender distal apophyses; distribution of modified hairs; Figs. 832-833), shape of bifid procursus (Figs. 829-830; similar *S. tchimbele*), unmodified male clypeus (in contrast to *S. kribi*), shape of sclerotized proximal part of embolus (Fig. 831), and anterior epigynal plate trapezoidal, evenly curved in lateral view (weakly protruding), with pair of low humps (Figs. 705-706, 834).

Male (holotype). Total body length 6.8, carapace width 1.8. Leg 1: 79.8 (18.7 + 0.8 + 17.7 + 38.9 + 3.7), tibia 2: 12.1, tibia 3: 8.0, tibia 4 missing; tibia 1 L/d: 100. Distance PME-PME 185 µm, diameter PME 185 µm, distance PME-ALE 90 µm, distance AME-AME 45 µm, diameter AME 170 µm. Carapace ochre-yellow with brown lateral margins and brown triangular mark posteriorly connected with brown ocular area, clypeus brown except below eyes, sternum dark brown; legs light brown, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 673-674, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified but hairs longer than usual; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 832-833, with lateral proximal apophyses, slender distal apophyses, and two pairs of distinctive frontal apophyses, distal and frontal apophyses and frontal cheliceral face provided with modified (cone-shaped) hairs. Palps as in Figs. 675-677; coxa unmodified; trochanter with simple ventral apophysis; femur proximally with shallow ventral pocket bordered retrolaterally by strong sclerotized ridge, with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with very indistinct hinge between proximal and distal part, ventral branch not visibly separated from proximal part (Figs. 829-830); bulb with widened and sclerotized proximal part of embolus (Fig. 831). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Tibia 1 in 3 other males: 15.5, 18.7, 20.3.

Female. In general similar to male; clypeus with shorter hairs. Tibia 1 in 4 females: 13.1, 14.0, 15.1, 16.1. Epigynum large, consisting of wide, roughly trapezoidal anterior plate with pair of low humps laterally, and large posterior plate (Figs. 705-706, 834); internal genitalia as in Figs. 707 and 835.

Natural history. While large trees with buttresses provided plenty of spaces for this species at "site 2", the lack of large trees at the otherwise similar "site 1" made it very difficult to find adult specimens. At "site 1", *S. bayaka* shared the forest with two small, litter-dwelling species of *Smeringopina* (*S. fang* and *S. ndjole*).

Distribution. Known from two localities in Gabon (Fig. 627).

Smeringopina chaillu new species

Figs. 11, 708-715, 836-841

Type. ♂ holotype from Gabon, Ngounié, Massif du Chaillu, "site 4", between Yéno and Mouila (1°43.7'S, 11°18.4'E), 650 m a.s.l., forest along river, 26.viii.2011 (B.A. & S.R. Huber), in ZFMK (Ar 10308).

Other material examined. GABON: *Ngounié*: Massif du Chaillu, "site 4", between Yéno and Mouila, same data as holotype, 4♂2♀ in ZFMK (Ar 10309); same data, 4 juvs. in pure ethanol, in ZFMK (Gab 171**)**. Massif du Chaillu, "site 3", between Mimongo & Yéno (1°38.1'S, 11°32.6'E), 570-650 m a.s.l., forest, 26.viii.2011 (B.A. & S.R. Huber), 1♀ in ZFMK (Ar 10310); same data, 1♀ in pure ethanol, in ZFMK (Gab 234). Massif du Chaillu, "site 2", near Moukabou (1°36.6'S, 11°40.7'E), 560 m a.s.l., forest, 25.viii.2011 (B.A. & S.R. Huber), 4♂3♀ in ZFMK (Ar 10311); same data, 3 juvs. in pure ethanol, in ZFMK (Gab 173**)**. *Ogooué-Lolo*: Massif du Chaillu, "site 1", near Iboundji (1°26.4'S, 11°58.4'E), 515 m a.s.l., forest along brook, 25.viii.2011 (B.A. & S.R. Huber), 1♂2♀ in ZFMK (Ar 10312); same data, 3 juvs. in pure ethanol, in ZFMK (Gab 176**)**.

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Distinguished from similar congeners (large species with long abdomen, cone-shaped modified hairs on male chelicerae, embolus with sclerotized proximal part, transversal light element ventrally on abdomen) by shape of bifid procursus (Figs. 836-837), unmodified male clypeus (in contrast to *S. kribi*), shape of sclerotized proximal part of embolus (Fig. 839), shapes of male cheliceral apophyses including pair of short frontal projections and distribution of modified hairs (Fig. 838), and trapezoidal anterior epigynal plate (similar to *S. bayaka* but without pair of humps) slightly angular in lateral view (Figs. 708-709, 840).

Male (holotype). Total body length 7.0, carapace width 2.0. Leg 1: 70.6 (16.1 + 0.8 + 15.7 + 34.5 + 3.5), tibia 2: 10.7, tibia 3: 7.7, tibia 4: 9.6; tibia 1 L/d: 93. Distance PME-PME 220 µm, diameter PME 195 µm, distance PME-ALE 105 µm, distance AME-AME 55 µm, diameter AME 185 µm. Carapace ochre-yellow with brown lateral margins and brown triangular mark posteriorly connected with brown ocular area, clypeus brown in lower half, sternum dark brown; legs light ochre-brown, dark rings subdistally on femora and tibiae and in patella area, tips of femora and tibiae whitish; abdomen ochre-gray with distinct dark pattern dorsally, laterally, and ventrally. Habitus as in Figs. 711-712, ocular area slightly elevated, secondary eyes with distinct 'pseudo-lenses'; clypeus unmodified but hairs longer than usual; deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Fig. 838, with lateral proximal apophyses, long distal apophyses, and pair of short frontal apophyses, distal and frontal apophyses and frontal cheliceral face provided with modified (cone-shaped) hairs. Palps as in Figs. 713-715; coxa unmodified; trochanter with simple retrolatero-ventral apophysis; femur proximally with very shallow ventral pocket bordered retrolaterally by strong sclerotized ridge, with small retrolateral apophysis, without prolateral modification; prolateral femur-patella joint very prominent and strongly shifted toward ventrally; tarsus with some stronger hairs dorsally; procursus with very indistinct hinge between proximal and distal part, with bifid main branch and pointed ventral branch (Figs. 836-837); bulb with widened and sclerotized proximal part of embolus (Fig. 839). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible.

Variation. Dorso-distal process of dorsal procursus branch slightly variable in length; frontal pair of processes on male chelicerae slightly variable in length. Tibia 1 in 6 other males: 17.1-19.3 (mean 17.8).

Female. In general similar to male; clypeus with shorter hairs. Tibia 1 in 8 females: 13.6-16.0 (mean 15.1). Epigynum large, consisting of wide, roughly trapezoidal anterior plate slightly angular in lateral view (Figs. 708-709, 840), and large posterior plate; internal genitalia as in Figs. 710 and 841.

Natural history. While this species was not uncommon in well preserved forests with large trees, adult specimens were difficult to find at those sites where the large trees were missing ("site 1" and "site 3" above).

Distribution. Known from four localities in Massif du Chaillu, southern Gabon (Fig. 627).

Smeringopina ngungu new species

Figs. 842-855

Type. ♂ holotype from Congo D.R., Bas Congo Province, Thysville [=Mbanza-Ngungu; 5°15'S, 14°52'E, ~600 m a.s.l.], in large cave (1500 m), 6.x.1938 (M. Bequaert), in MRAC (1374-82, part).

Other material examined. Congo D.R.: *Bas Congo*: Grottes de Thysville, 1955 (Elias), 1♀ in MRAC (81948).

Etymology. The name is a noun in apposition, derived from the type locality.

Diagnosis. Easily distinguished from known congeners by large clypeus projection with subdistal branch on posterior side and huge male cheliceral apophyses (Figs. 847, 850), by distinctive shape of procursus (slender distal element directed toward dorsally; Figs. 851, 852), and by very small epigynum consisting of anterior sclerotized arc and posterior plate projecting into and largely filling this arc (Figs. 848, 854).

Male (holotype). Total body length 4.5, carapace width 1.6. Leg 1: 12.8 + 0.7 + 13.1, metatarsus broken, tibia 2: 8.8, tibia 3: 6.0, tibia 4: 8.5; tibia 1 L/d: 99. Distance PME-PME 195 µm, diameter PME 135 µm, distance PME-ALE 70 µm, distance AME-AME 45 µm, diameter AME 105 µm. Entire specimen apparently bleached, mostly pale ochre-yellow, carapace, clypeus and sternum without clear darker pattern, legs without darker rings, abdomen with barely visible darker pattern, ventral dark bands without lateral constriction. Habitus as in Fig. 842, ocular area slightly elevated, secondary eyes with very indistinct 'pseudo-lenses'; clypeus with very strong and large median apophysis with subdistal branch on posterior side (Figs. 847, 850); deep thoracic pit and pair of shallow furrows diverging behind pit. Chelicerae as in Figs. 847 and 850, with extremely long lateral proximal apophyses, pointed distal apophyses, without modified hairs. Palps as in Figs. 844-846, very small in relation to body size; coxa unmodified; trochanter with blunt ventral projection; femur with retrolatero-ventral apophysis directed toward ventrally and distally, without prolateral modification; prolateral femur-patella joint only slightly shifted toward ventrally; tarsus with few slightly stronger hairs dorsally (partly lost); procursus very simple, slender distal part curved toward dorsally, without hinge (Figs. 851-852); bulb with weakly sclerotized conical embolus (Fig. 853). Legs without spines and curved hairs, with few vertical hairs (most hairs missing), retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae. Gonopore apparently with two epiandrous spigots (not confirmed by SEM).

Female. In general similar to male; clypeus unmodified. Tibia 1: 11.5. Epigynum very small relative to abdomen (Fig. 843), consisting of anterior sclerotized arc and posterior plate projecting into and largely filling this arc (Figs. 848, 854); anteriorly with pair of membranous bulges arising medially and bent toward laterally, each filled with lamellar structures reminding of book-lung lamellae (Fig. 855; book-lungs situated more laterally and apparently not connected to these lamellae); internal genitalia as in Figs. 849 and 855.

Distribution. Known from type locality only (Fig. 293).

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APPENDIX 1. Data matrix for cladistic analysis. Taxa are arranged as in the cladogram in Fig. 1 (outgroups as in Huber 2012). Terminals and characters are detailed in Appendices 2 and 3; "-" = nonapplicable; "?" = unknown or coding ambiguous; "*" = polymorphic coding [0,1]. *S.-us*: *Smeringopus*; *S.-ina*: *Smeringopina*. This matrix is available online at www.pholcidae.de/matrices.html.

	1 0	2 0	3 0	4 0	5 0	6 0
Ninetis subtilissima	00000020000110000-00-10-00?0000-0000000?0-10000000-00000000000010000					
Physocyclus globosus	10000020000210000-00-10-0000100-000000000-000000010000001000000010000					
Stygopholcus absoloni	1000002000?110000-?0-1111010000-000000000-00000001000000000000??????					
Hoplopholcus longipes	1000000000?110000-?0-1101000100-000000000-00000001001000000000001000?					
Hoploph. minotaurinus	10000000001110000-00-1101010100-000000000-00000001001000000000010001					
Cenemus culiculus	10000000001110000-0100--0010000-000000000-00000000-00000000000??????					
Holocnemus pluchei	10000000001110000-0100--1100000-000000000-00000001000000000000?????1					
Holocnemus hispanicus	10000100001110000-0100--1110000-000000000-00000001000000000000?????1					
Crossopr. johncloudsleyi	10000100001?10000-11110-1110000-000000000-00000001000000001000001000?					
Crossopriza lyoni	10001100001110000-01110-1110000-000000000-00000001000000001000??????					
Crossopriza pristina	10001100001?10000-?110--1110000-000000000-00000001000000001000??????					
Ceratopholcus maculipes	100011??????0000-?1?1??11?0??0-0000000?0-0000??????000001000??????					
S.-us mpanga	10000000000000000-00-10-0000100-000000010-00000001000000000010001000?					
S.-us ruhiza	1000000000??00000-00-10-0000100-000000011000000001000000000010001000?					
S.-us rubrotinctus	1000000000??00000-00-10-0000100-100000011000000011100000000010001000?					
S.-us mgahinga	10000000000000000-00-10-0000100-100000011000000011100000000010001000?					
S.-us bwindi	1000000000??00000-00-10-0000100-100000011000000011100000000010001000?					
S.-us chogoria	10000000000000000-0100--0000100-000000011100000001000000000000001000?					
S.-us bujongolo	1000000000??00000-0100--0000100-000000011100000001000000000000001000?					
S.-us ngangao	10000000000000000-0100--0000000-100000010-00000000-00000000000*10001					
S.-us arambourgi	10000001000?00000-0100--0000100-100000010-00000000-0000000000011000?					
S.-us oromia	1000000100??00000-0100--0000100-100000011000000001000000000000011000?					
S.-us saruanle	1000000?00??00000-0100--1000100-100000010-00000001000000000000011000?					
S.-us lineiventris	1000002000??00000-0100--0000100-100000011000000001000000000000011000?					
S.-us turkana	1000002100??00000-0100--0000100-100000010-00000001000000000000011000?					
S.-us florisbad	1000000000?000000-0100--0000100-100000010-00000001000100000000011000?					
S.-us lesnei	100000?000??00000-0100--?000?00-100000010-00000001000100000000011000?					
S.-us blyde	1000000000??00000-0100--0000100-100000010-00000001000100000000011000?					
S.-us natalensis	10000000000000000-0100--0000100-100000010-00000001000100000000011100?					
S.-us koppies	1000000000?000000-0100--0000100-100000010-00000001000100000000011100?					
S.-us badplaas	1000000000??00000-0100--0000100-100000010-00000001000100000000011100?					
S.-us mlilwane	1000000000?000000-0100--0000100-100000011000000001000100000000011010?					
S.-us hanglip	10000010000000000-0100--0000100-100000011000000001000100000000011010?					
S.-us lydenberg	1000001000??00000-0100--0000100-100000011000000001000100000000011010?					

……*continued on the next page*

APPENDIX 1. (Continued)

	1 0	2 0	3 0	4 0	5 0	6 0
S.-us pallidus	10000000000000000-0100--0000110-100000011000000001000000000000011000?					
S.-us lesserti	10000000000000000-0100--0000110-100000010-000000010000000001000011000?					
S.-us dehoop	1000000000??00000-0100--0000110-100000010-000000110000000001000011000?					
S.-us hypocrita	1000001000?000000-0100--0000110-100000010-000000110000000100001?000?					
S.-us sederberg	1000001000?000000-0100--0000110-100000010-000000110000000001000011000?					
S.-us atomarius	10000020000000000-0100--0100110-100000010-000000110000000001000011000?					
S.-us uisib	1000002000??00000-0100--0100110-100000010-000000110000000001000011000?					
S.-us tombua	1000002000??01000-0100--0100110-100000010-000000110000000001000011000?					
S.-us cylindrogaster	10000021000000000-0100--0100010-100000010-00000000-00000010000110001					
S.-us luki	1000002100??00000-0100--0100010-100000010-00000000-0000001000011000?					
S.-us isangi	1000002100?000000-0100--0100010-100000010-00000000-0000001000011000?					
S.-us moxico	1000000000??00000-0100--0100110-100000010-000000010000000100001?000?					
S.-us peregrinoides	10000000000000000-0100--0000110-100000010-000000010000000001000010000?					
S.-us peregrinus	10000000000000000-0100--0000110-100000010-000000010000000010000100001					
S.-us butare	10000000000000000-0100--0000110-100000010-000000010000000001000010000?					
S.-us katanga	1000000000??00000-0100--0000110-100000010-000000010000000001000010000?					
S.-us dundo	1000000000??00000-0100--0000110-100000010-000000010000000001000010000?					
S.-us similis	1000000000??00000-0100--0000110-100000010-000000010000000001000010000?					
S.-us kalomo	1000000000?000000-0100--0000110-100000010-000000010000000001000010000?					
S.-us chibububo	1000000000??00000-0100--0000110-100000010-000000010000000001000010000?					
S.-us thomensis	10000000001000000-0100--0000010-100000010-000000010000000001000010000?					
S.-us principe	10000000001?00000-0100--0000010-100000010-000000010000000001000010000?					
S.-us mayombe	10000000001?00000-0100--0000010-100000010-000000010000000001000010000?					
S.-us roeweri	10000000000001000-0100--0000110-100000010-000000010000000001000010000?					
S.-us carli	10000000000001000-0100--0000110-100000010-000000010000000001000010000?					
S.-us sambesicus	1000000000??01000-0100--0000110-100000010-000000010000000001000010000?					
S.-us lubondai	1000000000??01000-0100--0000110-100000010-000000010000000001000010000?					
S.-ina pulchra	10000010100000001000-11000000010000001000-00000101010000000010101001?					
S.-ina bineti	10000010100000011010-11000000010000001000-01000101010000000000101001?					
S.-ina guineensis	10000010100000011010-11000000010000001000-01000100-1000000000101001?					
S.-ina kinguele	10000010000000001100-0--01000010001000000-00000000-0000001000001000?					
S.-ina mohoba	1000001001??00001100-0--00000110001000100-00000000-0000000001011000?					
S.-ina fang	10010010010000001100-0--00000110001002100-00000000-00000000*1001000?					
S.-ina tebe	10010010010000001100-0--0001010-001002100-00000000-0000001001001000?					
S.-ina lekoni	1001001001??00001100-0--00010110001002100-00000000-0000000001001000?					
S.-ina iboga	1001001001??00001100-0--00010110001002100-00000000-0000100001001000?					
S.-ina moudouma	10010010010000001100-0--00010111001002100-00000000-0000100001001000?					
S.-ina ndjole	1001001001??00001100-0--00010111001002000-00000000-0000100001001000?					
S.-ina kikongo	1001001001??00001100-0--00?10111001002100-00000000-0000100001001000?					
S.-ina attuleh	1000000000??00001000-11100000010010000100-00000000-0000000000001000?					
S.-ina mbouda	10000000000000001000-11100000010010000100-00000000-0000000000001000?					
S.-ina fon	100100000???00011000-10-00000010010000100-00000000-0000?00010001000?					
S.-ina ankasa	1000000000?000001000-0--00000110010000100-00100000-0000000010001000?					
S.-ina bomfobiri	1000000000?000001000-11000000110010000100-01100000-0000000010001000?					
S.-ina ibadan	100000?000?000001000-10-00000110010000100-00100010-0000000010001000?					
S.-ina armata	1100?0?000?000001000-0--00000110010000100-00001000-0000???????????					
S.-ina bamenda	1100001000??00001000-0--00000110010000100-00001000-0000000010001000?					
S.-ina cornigera	11100000000000001000-11000000110010000000-01001000-0000010010001000?					
S.-ina nyasoso	1110001000??00001000-11000000110010000000-01001000-0000010010001000?					

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APPENDIX 1. (Continued)

	1 0	2 0	3 0	4 0	5 0	6 0
S.-ina kala	1110000000??00001000-11000?00110010000000-01001000-0000010010001000?					
S.-ina camerunensis	1000001000??00001000-1100000001000001?0110-10100000-0000000000001000?					
S.-ina djidji	1000001000??00001000-1100000001000001?0110-10?00000-0000000000001000?					
S.-ina ogooue	1000001000000000001000-1100000001000010 0?10-10?00000-0000000000001000?					
S.-ina bioko	1000001000??00001000-1100000001000010 0110-11?00000-0000000000001000?					
S.-ina etome	1000001000000000001000-1100000001000010 0?10-11100000-0000000000001000?					
S.-ina africana	1000001000??00001000-1100000001000001?0?10-11?00000-0000000000001000?					
S.-ina simplex	1000001000000000001000-1100000001000010 0110-11100000-0000000000001000?					
S.-ina bwiti	1000001010?000001000-1100000001000010 0?10-11?00000-0000000000001000?					
S.-ina luki	1000001000??00001000-1100000001000001?0110-11?00000-0000000000001000?					
S.-ina ebolowa	1000001000?000001000-1100000001000011 0110-00100000-0001000000001000?					
S.-ina essotah	1000001000??00001000-1100000001000011 0110-00100000-00010000100?1000?					
S.-ina mayebout	1000001000??00001000-1100000001000011 0110-00100000-0001000000001000?					
S.-ina simintang	1000001000??00001000-1100000001000011 0110-00100000-0001000000001000?					
S.-ina belinga	1000001000000000001000-1100000001000011 01?0-00100000-0001000000001000?					
S.-ina beninensis	1000001010??00001000-1100000001000011 01?0-00100000-0001000000001000?					
S.-ina kribi	1000001010??00001000-1100000001000011 0110-00110000-0001000000001000?					
S.-ina sahoue	1000001010000000001000-1100000001000011 0110-00110000-0001000000001000?					
S.-ina tchimbele	1000001010000001 01000-1100000001000011 0110-00110000-0001000000001000?					
S.-ina bayaka	1000001010??00101000-1100000001000011 0110-00?10000-000100000?001000?					
S.-ina chaillu	1000001010??00101000-1100000001000001?0110-00110000-0001000000001000?					

APPENDIX 2. Terminal taxa scored for the cladistic analysis, with origin and depository. Taxa are arranged as in the cladogram in Fig. 1.

Outgroups

Smeringopus and other Smeringopinae: see Huber (2012)

Smeringopina

S. pulchra (Millot, 1941): Ivory Coast, Apouesso (MRAC)
S. bineti (Millot, 1941): Guinea, Dalaba (ZFMK)
S. guineensis (Millot, 1941): Guinea, Forêt Classée de Diéké (ZFMK)
S. kinguele n. sp.: Gabon, Monts de Cristal (ZFMK)
S. mohoba n. sp.: Gabon, Mohoba-Mozeye (ZFMK)
S. fang n. sp.: Gabon, nr. Djidji (ZFMK)
S. tebe n. sp.: Gabon, N Tébé (ZFMK)
S. lekoni n. sp.: Gabon, at Lékoni River (ZFMK)
S. iboga n. sp.: Gabon, nr. Moulandoufouala (ZFMK)
S. moudouma n. sp.: Gabon, Moudouma (ZFMK)
S. ndjole n. sp.: Gabon, nr. Ndjolé (ZFMK)
S. kikongo n. sp.: Congo D.R., Luki F.R. (MRAC)
S. attuleh n. sp.: Cameroon, Attuleh (ZFMK)
S. mbouda n. sp.: Cameroon, Bamboutos (ZFMK)
S. fon n. sp.: Benin, Kpinkonzoumé (ZFMK)
S. ankasa n. sp.: Ghana, Ankasa N.P. (ZFMK)
S. bomfobiri n. sp.: Ghana, Bomfobiri W.S. (ZFMK)
S. ibadan n. sp.: Nigeria, Ibadan (ZFMK)
S. armata (Thorell, 1899): Cameroon, Mamfe (CAS)
S. bamenda n. sp.: Cameroon, nr. Bamenda (ZFMK)
S. cornigera (Simon, 1907): Cameroon, 1.4 km NE Etome (CAS)
S. nyasoso n. sp.: Cameroon, Mt. Koupé (ZFMK)
S. kala n. sp.: Cameroon, Mt. Kala (ZFMK)

S. camerunensis Kraus, 1957: Cameroon, nr. Douala (ZFMK)
S. djidji n. sp.: Gabon, nr. Djidji (ZFMK)
S. ogooue n. sp.: Gabon, Moudouma (ZFMK)
S. bioko n. sp.: Equatorial Guinea, Bioko, 5 km W Luba (CAS)
S. etome n. sp.: Cameroon, 1.4 km NE Etome (CAS)
S. africana (Thorell, 1899): Cameroon, betw. Kribi and Campo (ZFMK)
S. simplex Kraus, 1957: Cameroon, Mt. Koupé (ZFMK)
S. bwiti n. sp.: Gabon, nr. Moulandoufouala (ZFMK)
S. luki n. sp.: Congo D.R., Luki F.R. (MRAC)
S. ebolowa n. sp.: Cameroon, near Kribi (ZFMK)
S. essotah n. sp.: Cameroon, Essotah (ZFMK)
S. mayebout n. sp.: Gabon, Mayebout (ZFMK)
S. simintang n. sp.: Gabon, nr. Simintang (ZFMK)
S. belinga n. sp.: Gabon, Monts de Belinga (ZFMK)
S. beninensis Kraus, 1957: Benin, Niaouli (ZFMK)
S. kribi n. sp.: Cameroon, betw. Kribi and Campo (ZFMK)
S. sahoue n. sp.: Gabon, nr. Sahoué (ZFMK)
S. tchimbele n. sp.: Gabon, Monts de Cristal (ZFMK)
S. bayaka n. sp.: Gabon, nr. Ndjolé (ZFMK)
S. chaillu n. sp.: Gabon, Massif du Chaillu, betw. Yéno and Mouila (ZFMK)

APPENDIX 3. Characters scored for cladistic analysis. For characters that were used in Huber (2012), only the character state(s) occurring in *Smeringopina* are mentioned.

Prosoma

1. Thoracic pit (Huber 2012: char. 1): (0) absent; (1) present. A deep round depression medially on the carapace (Figs. 65, 104, 330, 726) is plesiomorphic for *Smeringopina* and occurs in all species.
2. Large horns on male ocular area: (0) absent; (1) present. In Smeringopinae, such horns occur only in the *cornigera* group of *Smeringopina* (e.g. Figs. 413, 415, 445). Similar horns have evolved independently in Pholcinae (Huber 2011).
3. Additional pair of small horns on male ocular area: (0) absent; (1) present. A second pair of small horns (Fig. 446) unites three species of the *cornigera* group of *Smeringopina*.
4. Simple median sclerotized apophysis on male clypeus: (0) absent; (1) present. A variety of clypeus modifications occur in *Smeringopina* (see e.g. Figs. 190, 211, 246, 271, 427, 432, 446, 725, 778, 850) but they are here considered as too different for a primary homology statement. However, a simple median sclerotized apophysis (e.g. Figs. 213, 271) seems to unite several species of the *lekoni* group (a similar apophysis in *S. fon* is considered a convergence).
5. Female paired stridulatory organ between carapace and abdomen (Huber 2012: char. 2): (0) absent; (1) present. Such a stridulatory organ characterizes some outgroup taxa but does not occur in *Smeringopina*.

Abdomen

6. Angular elevation posteriorly (Huber 2012: char. 4): (0) absent; (1) present. An elevation of the abdomen above the spinnerets does never occur in *Smeringopina*.
7. Ventral pattern in median section (behind epigynum/gonopore): (0) three dark lines; (1) two dark lines; (2) monochromous or dark spots only. This character was previously coded to include five character states (Huber 2012: char. 5) and is here slightly recoded. Nevertheless, the variety of patterns among species and variation within species continues to make this character problematic.
8. Dark transversal band ventrally (Huber 2012: char. 6): (0) absent; (1) present. A transversal dark band ventrally on the abdomen does never occur in *Smeringopina*.
9. Light transversal element in ventral pattern: (0) absent; (1) present. A straight light element (e.g. Figs. 688, 690, 692) characterizes *S. beninensis* and some close relatives (with a convergence in *S. bwiti*); a U-shaped light element (e.g. Figs. 37, 42, 49) characterizes the *guineensis* group.
10. Lateral constriction of dark ventral bands: (0) absent; (1) present. A constriction of the dark ventral abdominal bands (Figs. 164-172) unites all members of the *lekoni* group except *S. kinguele*.
11. ALS spigots (Huber 2012: char. 7): (0) each ALS with 7–8 spigots (one widened, one pointed, and 5–6 cylindrically shaped spigots); (1) each ALS with only 2 spigots (one widened, one pointed). All species of *Smeringopina* seem to have the plesiomorphic set of 7-8 spigots (e.g. Figs. 71, 237, 342, 452, 566).
12. Epiandrous spigots at male gonopore (Huber 2012: char. 8): (0) two; (1) four or more; (2) absent. All species of *Smeringopina* studied have the reduced set of two spigots that unites *Smeringopus* and *Smeringopina* (e.g. Figs. 72, 219, 340, 453, 563).

Male chelicerae

13. Stridulatory files: (0) absent; (1) present (Huber 2012: char. 9). As in the previous analysis (Huber 2012), the loss of cheliceral stridulation characterizes and unites *Smeringopus* and *Smeringopina*.
14. Rounded and light projections frontally (Huber 2012: char. 10): (0) absent; (1) present. Such projections (see figs. 772, 780, 789 in Huber 2012) do never occur in *Smeringopina*.
15. Proximal frontal apophyses with modified hairs: (0) absent; (1) present. A unique additional pair of frontal apophyses (Figs. 814, 833, 838) unites three species of the *beninensis* group (*S. tchimbele*; *S. bayaka*; *S. chaillu*).
16. Proximal median sclerotized projection: (0) absent; (1) present. A sclerotized proximal projection near the median line of the male chelicerae (Figs. 83, 108) unites *S. bineti* and *S. guineensis* but a similar structure has convergently originated in *S. fon* (Fig. 345).
17. Lateral apophyses directed toward proximally (Huber 2012: char. 11): (0) absent; (1) present. All species of *Smeringopina* have these apophyses (e.g. Figs. 59, 228, 345, 436) but they are often more or less fused with the distal lateral apophyses (e.g. Figs. 623, 782) and in some species of the *lekoni* group they are rather directed toward anteriorly or even toward distally (e.g. Figs. 194, 214, 255).
18. Position of lateral apophyses: (0) proximal; (1) distal. In most species of *Smeringopina*, the lateral cheliceral apophyses (char. 17) are in a proximal position (e.g. Figs. 59, 345, 782). In the *lekoni* group, the apophyses that are here considered to be homologous are in a more distal position (e.g. Figs. 186, 205, 228). A very similar situation (even with respect to the direction of the apophyses) occurs in Pholcinae (see Huber 2011: char. 17).
19. Enlarged hair bases (Huber 2012: char. 12): (0) absent; (1) present. As indicated previously (Huber 2012), this character may prove to be useful in future analyses of Mediterranean and Middle East taxa of Smeringopinae. In the present matrix, a single enlarged hair base near the fang joints (Figs. 79, 99, 111) unites *S. bineti* and *S. guineensis*.
20. Distal frontal apophyses provided at their tips with a single modified hair each (Huber 2012: char. 13): (0) absent; (1) present. Such apophyses do not occur in *Smeringopina*.
21. Direction of distal frontal apophyses (Huber 2012: char. 14): (0) toward distally; (1) toward medially. This character refers to a specific condition of character 20 and is thus not applicable in *Smeringopina*.
22. Distal lateral apophyses (Huber 2012: char. 15): (0) absent; (1) present. In contrast to the distal frontal apophyses above (char. 20), these apophyses are never provided with a single modified hair at their tips. They are either without modified hairs or provided with two or more modified hairs at their inner sides (see char. 23). Such apophyses are plesiomorphic for *Smeringopina* but they have been reduced at least three times (*lekoni* group, *S. armata* + *S. bamenda*; *S. ankasa*).
23. Modified hairs on distal lateral apophyses (Huber 2012: char. 16): (0) absent; (1) present (two or more on inner side; see char. 22). The presence of modified hairs is here interpreted to unite all *Smeringopina*. Hairs have secondarily been lost in two species (*S. fon* and *S. ibadan*). They are also absent in *S. ngungu* and of course in those taxa without distal lateral apophyses (char. 22).
24. Number of modified hairs on distal lateral apophyses: (0) <20; (1) >20. A high number of densely packed modified hairs (Figs. 320, 326, 336) unite *S. attuleh* and *S. mbouda*.

Legs

25. Spines on femora of male legs (Huber 2012: char. 17): (0) absent; (1) present. Ventral spines on the frontal male femora (leg 1 or legs 1 and 2) do not occur in *Smeringopina*.
26. Dark spots on leg femora (Huber 2012: char. 18): (0) absent; (1) present. Dark spots on the femora (and sometimes tibiae) do not occur in *Smeringopina* (except *S. kinguele*).
27. Prolateral trichobothrium on tibia 1 (Huber 2012: char. 19): (0) present; (1) absent. This trichobothrium is present in all *Smeringopina* species studied. Its presence is plesiomorphic for Smeringopinae.
28. Dark rings on leg tibiae: (0) 0-2; (1) 3-4. Two dark rings on each leg tibia are probably plesiomorphic but one or both rings are sometimes poorly visible or absent. A higher number is unusual and unites six species of the *lekoni* group.
29. Curved hairs on legs (Huber 2012: char. 20): (0) absent; (1) present. Curved hairs on legs do not occur in *Smeringopina*.

Male palp

30. Retrolateral apophysis on palpal coxa (Huber 2012: char. 21): (0) absent; (1) present. Such an apophysis unites all species of the *lekoni* group except *S. kinguele*, and the *cornigera* and *ankasa* groups. The only other occurrence in Smeringopinae is in one clade of *Smeringopus* (Huber 2012).
31. Palpal trochanter apophysis (Huber 2012: char. 22): (0) absent; (1) present. Only *Smeringopina* species among Smeringopinae have such an apophysis (absent only in *S. tebe*), presumably functionally related to the lateral cheliceral apophysis (char. 17).
32. Palpal trochanter apophysis ventral surface: (0) smooth; (1) serrated or provided with several small sclerotized cones. A ventrally serrated or uneven surface (e.g. Fig. 160) characterizes the trochanter apophyses of three species of the *lekoni* group. In *S. kinguele* only the tip carries some sclerotized cones (Fig. 242).
33. Retrolateral furrow on palpal femur (Huber 2012: char. 23): (0) absent; (1) present. A deep furrow with often distinct proximal rim occurs in most species of *Smeringopus*, but it is absent in *Smeringopina*.
34. Retrolateral flap on palpal femur bordering ventral whitish area: (0) absent; (1) present. A variably distinct retrolateral flap bordering a ventral whitish area (e.g. Figs. 303, 317) is here interpreted to unite several species groups of *Smeringopina* (*attuleh* group, *S. fon*, *ankasa* group, *cornigera* group).

35. Strong retrolateral apophysis on palpal femur bent toward ventrally: (0) absent; (1) present. A strong retrolateral femur apophysis that is bent toward ventrally (e.g. Figs. 145, 152) unites all species of the *lekoni* group.
36. Heavily sclerotized ventral ridge proximally on palpal femur: (0) absent; (1) present. Such a ridge (e.g., Figs. 477, 497, 637) unites the *simplex* and *beninensis* groups of *Smeringopina*.
37. Palpal femur proximal ventral pocket: (0) absent; (1) present. A ventral pocket (e.g., Figs. 727, 765) just prolateral of the ventral ridge (char. 36) is a synapomorphy of the *beninensis* group of *Smeringopina*.
38. Palpal femur ventral distal modification: (0) absent; (1) large round bulge; (2) slender projection. A large round bulge (e.g. Figs. 45, 52) characterizes the palpal femur in the *guineensis* group. A slender, weakly sclerotized and more or less pointed projection unites all species of the *lekoni* group except *S. kinguele* and *S. mohoba*.
39. Prolateral femur-patella joint of male palp: (0) in normal position (dorsal to prolateral); (1) in very ventral position. In many species of *Smeringopina*, the prolateral femur-patella joint of the male palp is strongly shifted toward ventrally (e.g., Figs. 127, 130). In the cladogram in Fig. 1 this derived position unites all species except the *guineensis* group, but it is also absent in some other species where it is considered a reversal.
40. Macrotrichia on palpal tarsus (Huber 2012: char. 24): (0) absent; (1) present. Strong hairs dorsally on the palpal tarsus occur in all *Smeringopus* but also in some *Smeringopina* (e.g. Figs. 476, 491, 506, 597, 615) where they unite the *simplex* and *beninensis* groups. The cladogram suggests two independent origins in Smeringopinae.
41. Process near palpal tarsal organ (Huber 2012: char. 25): (0) absent; (1) present. Such a process is common in *Smeringopus* but does not occur in *Smeringopina*.
42. Length of process on palpal tarsus (Huber 2012: char. 26): (0) short; (1) very long. This character refers to a specific condition of character 41 and is thus not applicable in *Smeringopina*.
43. Procursus tip: (0) with membranous and sclerotized projections; (1) with simple pointed tip. A simple pointed tip (e.g. Figs. 542, 554, 576) characterizes the procursus of the *simplex* group of *Smeringopina*. The condition in *S. ngungu* is similar (Fig. 852) and probably convergent.
44. Procursus in median part: (0) straight; (1) curved toward ventrally. A curved procursus unites *S. bineti* + *S. guineensis* (Figs. 45, 52), three species of the *cornigera* group (Figs. 440, 457, 463), and six species of the *simplex* group (e.g. Figs. 570, 576, 582).
45. Procursus hinge (Huber 2012: char. 27): (0) absent; (1) present. A hinge between the proximal and distal parts of the procursus occurs in the *ankasa* group (rather distally; e.g. Fig. 370) and in most species of the *simplex* and *beninensis* groups of *Smeringopina* (rather proximally; e.g. Figs. 541, 785). In some species of the *simplex* group this hinge is very indistinct or barely visible, possibly as a result of the general simplification of the procursus in this group (cf. char. 43).
46. Procursus ventral branch: (0) absent; (1) present. A distinct ventral branch on the procursus (e.g. Figs. 786, 792, 811) unites five species of the *beninensis* group of *Smeringopina*.
47. Dense brush of hairs retrolaterally on procursus: (0) absent; (1) present. A dense brush of hairs retrolaterally on the procursus (e.g., Figs. 429, 434, 448, 463) is a synapomorphy of the *cornigera* group of *Smeringopina*.
48. Ventral hairs of procursus curved around procursus retrolaterally and pointing toward dorsally (Figs. 57, 77, 84, 97): (0) absent; (1) present. Such unusual hairs are only known in the three species of the *guineensis* group of *Smeringopina*.
49. Procursus tip direction (Huber 2012: char. 28): (0) more or less straight; (1) strongly bent toward prolaterally. A procursus that is distally strongly bent toward prolaterally occurs in some species of *Smeringopus* and convergently in *Smeringopina ibadan* (Fig. 370).
50. Pointed apophysis distally on procursus (Huber 2012: char. 29): (0) absent; (1) present. Most Smeringopinae have such an apophysis with a more or less moveable connection to the procursus, but it also occurs in Arteminae (e.g., in the outgroup taxon *Physocyclus globosus*) and is thus probably plesiomorphic for Smeringopinae. Most species of *Smeringopina* lack such an apophysis (present only in *S. bineti* and *S. pulchra*; Figs. 57, 77).
51. Shape of pointed apophysis distally on procursus (Huber 2012: char. 30): (0) simple; (1) bifid. Since only *S. bineti* and *S. pulchra* have such an apophysis (see char. 50), the character is not applicable for most species of *Smeringopina*.
52. Sclerite embedded in dorso-distal membranes of procursus: (0) absent; (1) present. This distinctive sclerite (Figs. 56, 70, 76, 85, 96) occurs only in the three species of the *guineensis* group of *Smeringopina*.
53. Long membranous process on procursus (Huber 2012: char. 31): (0) absent; (1) present. A long semitransparent process at the tip of the procursus unites the two species of *Hoplopholcus* included in the present matrix, but does not occur in *Smeringopina*.
54. Processes arising from genital bulb (Huber 2012: char. 32): (0) one or two; (1) three. All *Smeringopina* species share the plesiomorphic condition of a single process arising from the genital bulb.
55. Embolus proximal sclerotization: (0) absent; (1) present. A proximally sclerotized and usually widened and sculptured embolus (e.g., Figs. 718, 741, 763, 800) is a synapomorphy of the *beninensis* group of *Smeringopina*.

Female genitalia

56. Epigynum frontal ridge: (0) absent; (1) present. A more or less straight frontal ridge (e.g. Figs. 257, 291) characterizes the epigynum of four species of the *lekoni* group of *Smeringopina*. A similar though more curved ridge (rather a pocket) evolved independently in *S. fon* (Fig. 347).
57. Epigynum anterior knob: (0) absent; (1) present. A small knob-shaped structure occurs at the anterior edge of the epigynum in three species of the *cornigera* group of *Smeringopina*. A much larger knob-shaped process occurs in the outgroup taxon *Physocyclus globosus*.

58. Epigynal pockets lying side by side (Huber 2012: char. 33): (0) absent; (1) present. A pair of pockets lying side by side and opening toward ventrally unite several species groups in *Smeringopus* but are very rare in *Smeringopina* (very distinct pockets in *S. tebe*: Fig. 230; small pockets in *S. kinguele*: Fig. 188).
59. Epigynal pockets on median ridge facing away from each other (Huber 2012: char. 34): (0) absent; (1) present. Such pockets that open toward laterally unite *Crossopriza* and *Ceratopholcus* but do not occur in *Smeringopina*.
60. Large posterior indentation of epigynum (Huber 2012: char. 35): (0) absent or indistinct; (1) present. A large posterior indentation or excavation of the epigynum (e.g. Figs. 60, 347, 383, 742) occurs in several taxa of both *Smeringopus* and *Smeringopina* but not in other Smeringopinae genera. This character is here interpreted as having evolved four times independently.
61. Posterior epigynal plate lateral overhanging folds: (0) absent; (1) present. In all species of the *lekoni* group except *S. kinguele*, the posterior epigynal plate is laterally folded backwards to produce an overhang (e.g. Figs. 180, 230, 251).
62. Pair of sclerotized areas on posterior epigynal plate forming distinct anterior sclerite: (0) absent; (1) present. This modification of the posterior epigynal plate (Figs. 53-55) unites the three species of the *guineensis* group of *Smeringopina*.
63. Arrangement of pores on pore plates (Huber 2012: char. 36): (0) homogeneous; (1) in groups or 'islands'. In most Smeringopinae and in all *Smeringopina* species except *S. mohoba* (Fig. 196), the pores are arranged homogeneously.
64. 'Valve' in internal female genitalia (Huber 2012: char. 37): (0) part of 'valve' appears medially widened and divided; (1) simple. All *Smeringopina* species share the plesiomorphic unmodified 'valve'.
65. V-shaped structure in female internal genitalia (Huber 2012: char. 38): (0) absent; (1) present. This structure (see figs. 279, 281, 283 in Huber 2012) does not occur in *Smeringopina*.
66. Internal pockets in female genitalia (Huber 2012: char. 39): (0) absent; (1) present. Such internal pockets (see figs. 342, 361, 366 in Huber 2012) do not occur in *Smeringopina*.
67. Globular structures in internal female genitalia: (0) absent; (1) present. Globular structures between the 'valve' and the ventral body wall (possibly originating from the 'valve'; Figs. 61, 81, 101) are a unique synapomorphy of the *guineensis* group of *Smeringopina*.

Web structure

68. Facultative addition of silk balls to web (Huber 2012: char. 40): (0) absent; (1) present. Such silk balls seem to be widespread in Smeringopinae but they have been documented in a few species only (Huber 2012). They have not been documented in any species of *Smeringopina*.

FIGURES

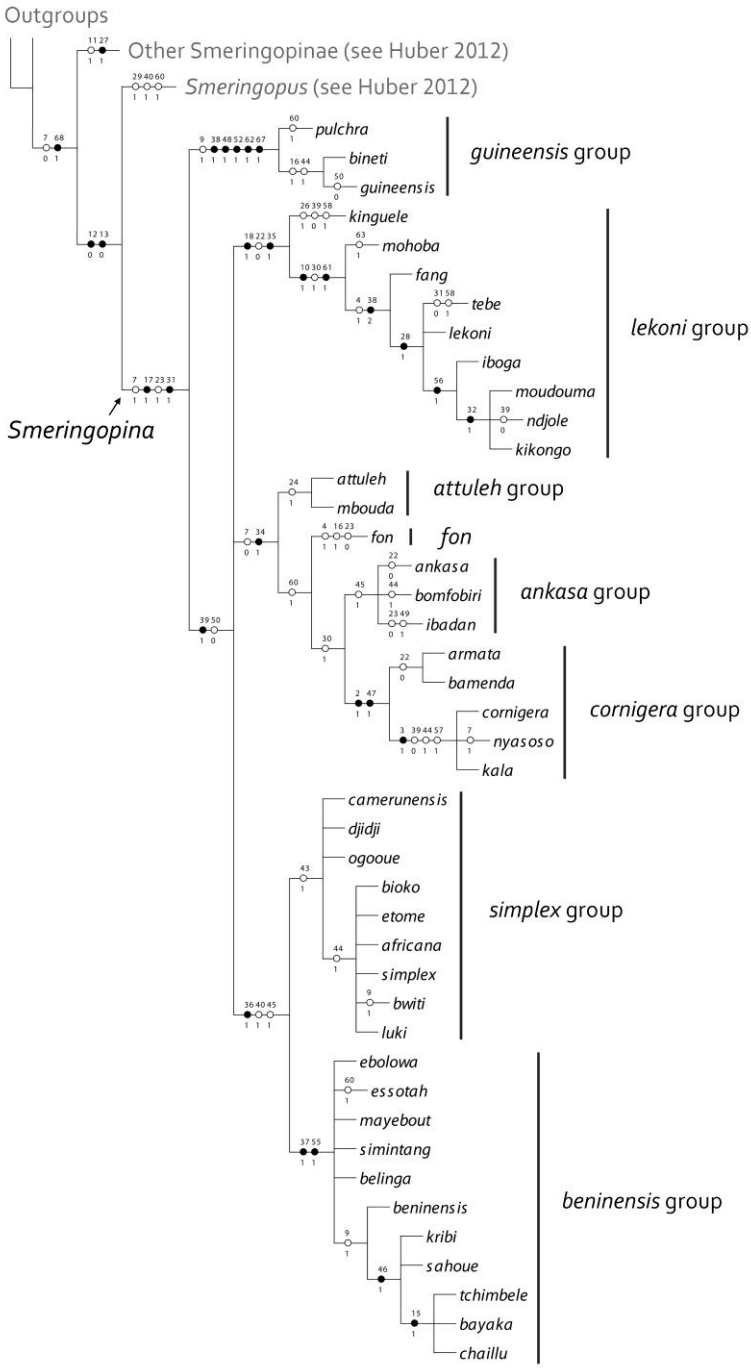
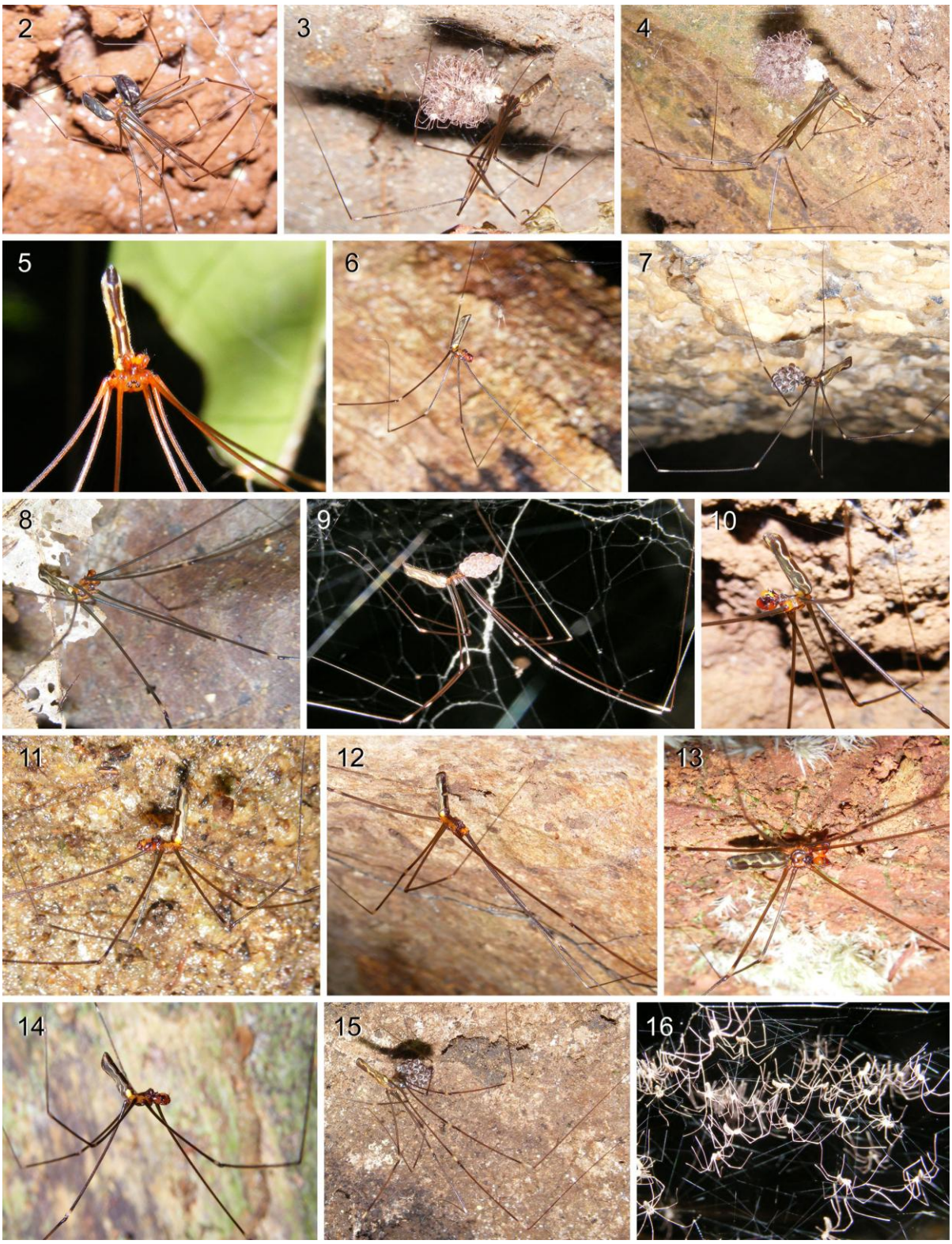


FIGURE 1. Single most parsimonious cladogram of *Smeringopina* resulting from analyses of the matrix in Appendix 1 using equal character weights, successive weighting, and implied weighting. Only unambiguous character changes are shown. See Cladistic analysis section for discussion.



FIGURES 2-16. *Smeringopina*, alive specimens in their natural habitats. 2-3. *S. bineti*, mating pair (Sêbori, Guinea) and female with juveniles (Doucki, Guinea). 4. *S. guineensis*, female with juveniles (Mount Nimba, Guinea). 5. *S. pulchra*, male (Ankasa N.P., Ghana). 6. *S. ebolowa*, male (Kribi, Cameroon). 7. *S. essotah*, female with eggsac (Essotah, Cameroon). 8-9. *S. ogooue*, male (NE Makokou, Gabon) and female with eggsac (Pahon Pira, Gabon). 10. *S. belinga*, male (Monts de Belinga, Gabon). 11. *S. chaillu*, male (near Iboundji, Gabon). 12. *S. bwiti*, male (Moulandoufouala, Gabon). 13. *S. sahoue*, male (Sahoué, Gabon). 14. *S. tchimbele*, male (Monts de Cristal, Gabon). 15-16. *S. simplex*, female with eggsac and juveniles (Mt. Koupé, Cameroon).

FIGURES 17-31. *Smeringopina*, webs and alive specimens in their natural habitats. 17. *S. guineensis*, web (Diéké, Guinea). 18. *S. kribi*, web with nematocerous flies (S Kribi, Cameroon). 19. *S. kala*, male (Mt. Kala, Cameroon). 20. *S. bamenda*, pair (Bamenda, Cameroon). 21-22. *S. nyasoso*, male and female with eggsac (Mt. Koupé, Cameroon). 23. *S. mbouda*, male (near Lake Oku, Cameroon). 24. *S. attuleh*, female with eggsac (Essotah, Cameroon). 25. *S. kinguele*, female with juveniles (Monts de Cristal, Gabon). 26. *S. tebe*, male (N Tébé, Gabon). 27. *S. lekoni*, female with eggsac (at Lekoni River, Gabon). 28. *S. moudouma*, mating pair (Moudouma, Gabon). 29-30. *S. fang*, male (Djidji, Gabon) and female with eggsac (Mayebout, Gabon). 31. *S. ankasa*, female with eggsac (Ankasa N.P., Ghana).

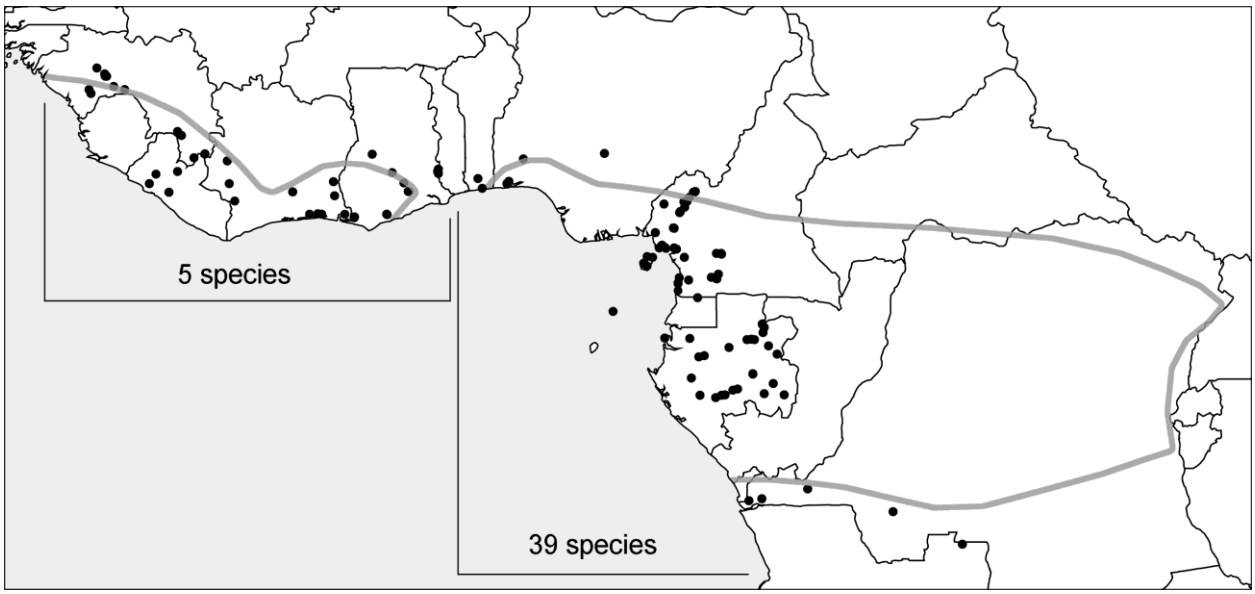


FIGURE 32. Known distribution of *Smeringopina*. The wide gray line delineates the Guineo-Congolian center of endemism, after White (1983) in Dowsett-Lemaire & Dowsett (2001). Note that the apparent eastern limit of the distribution of *Smeringopina* is probably an artifact resulting from lack of focused collecting.

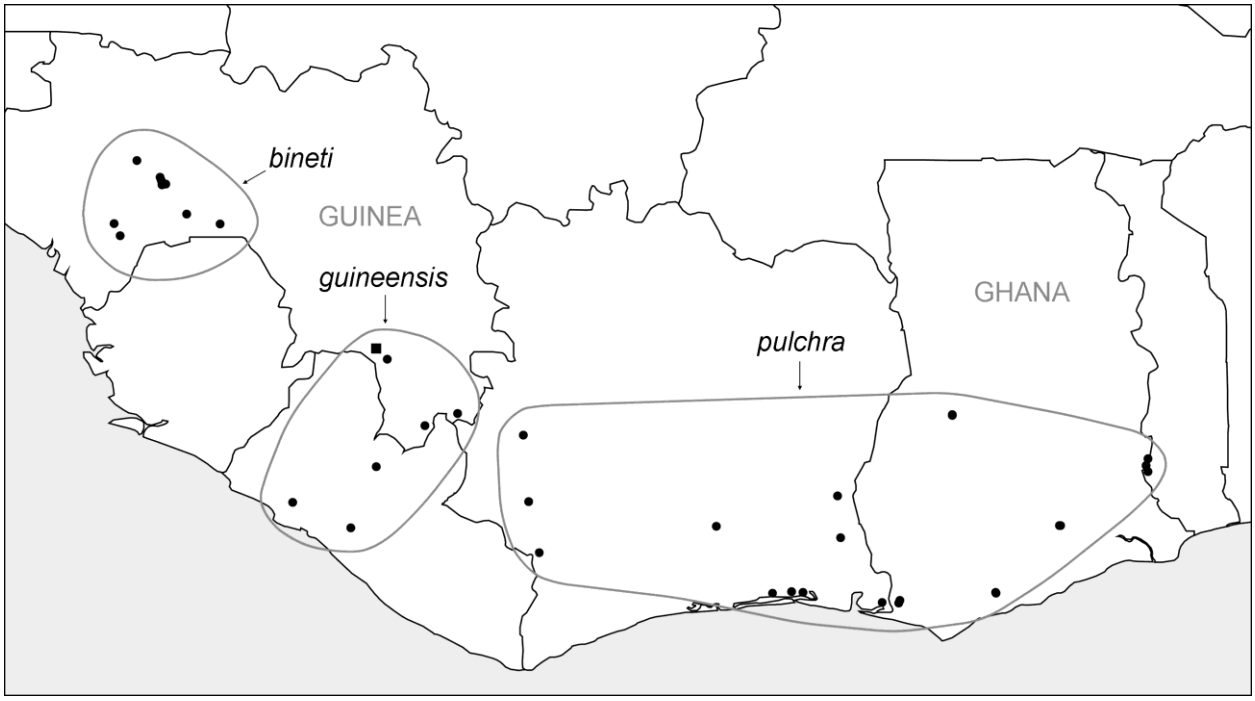
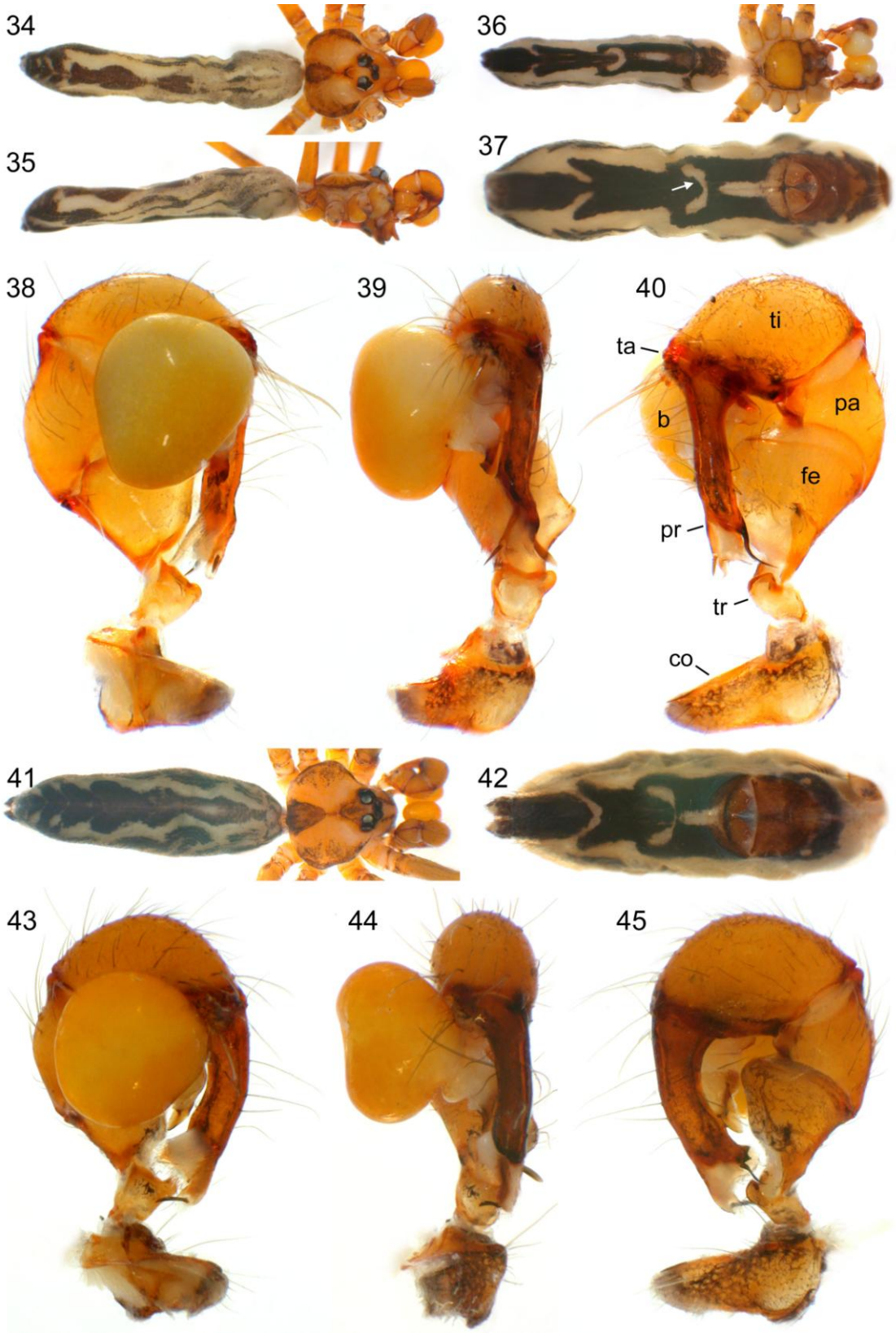
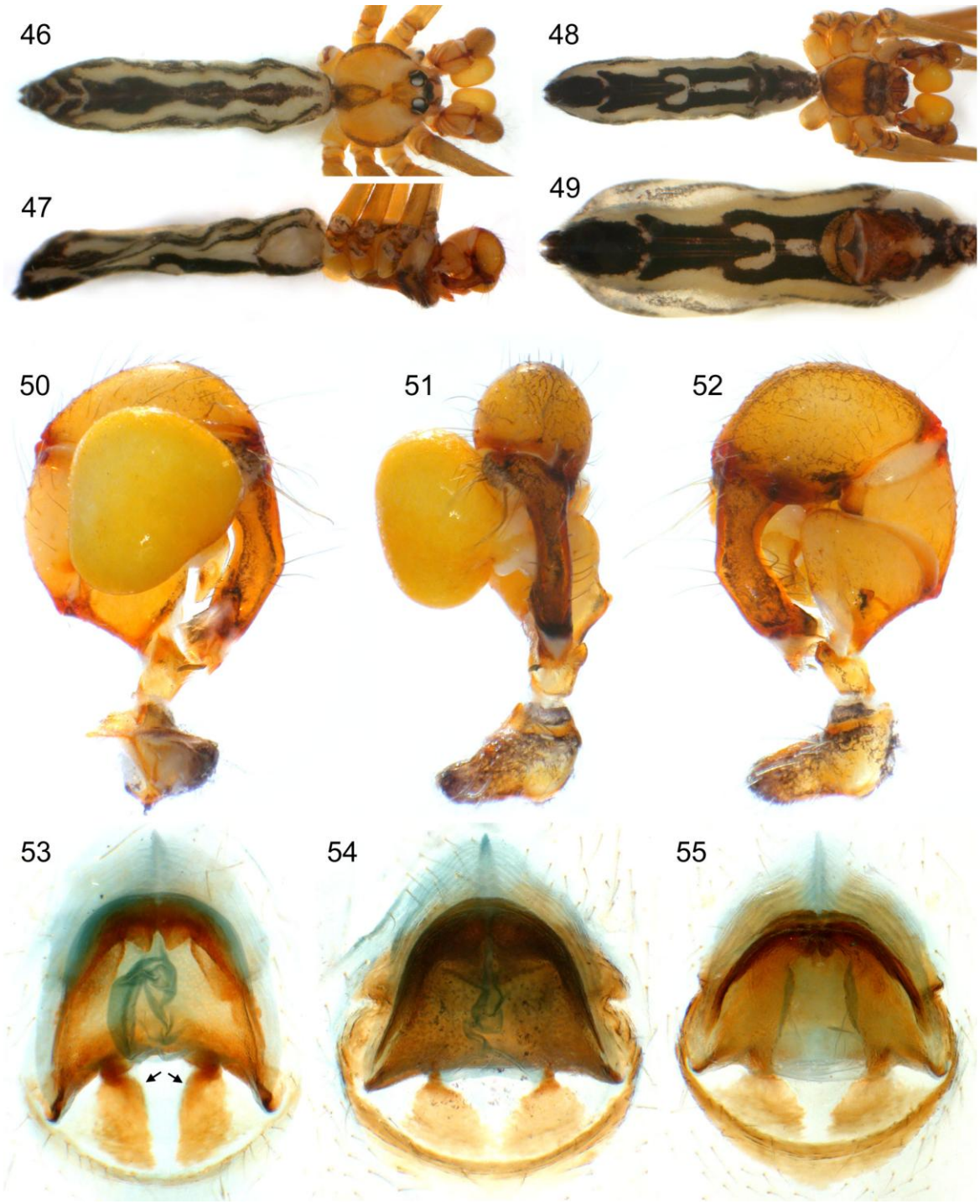


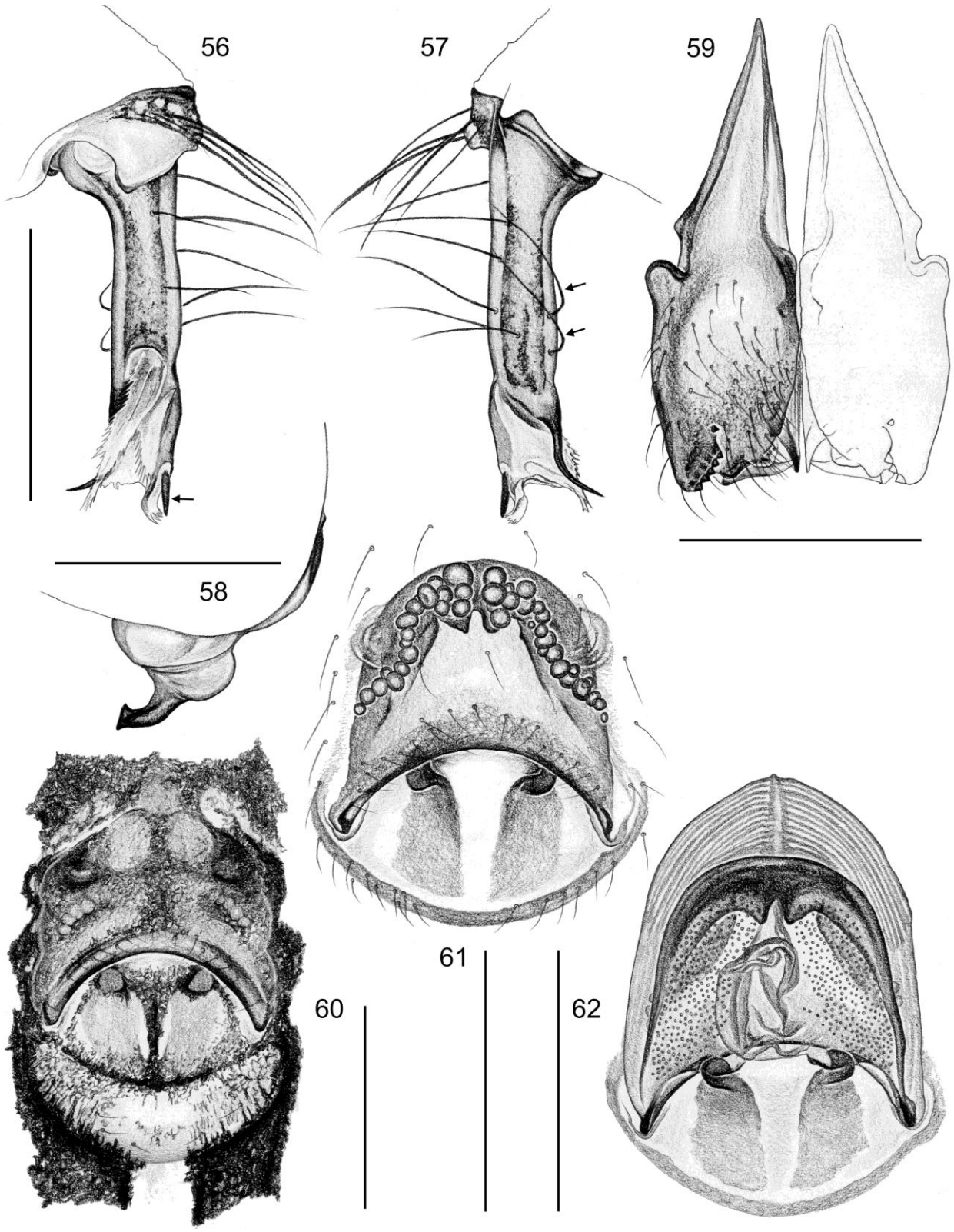
FIGURE 33. Known distribution of the *guineensis* species group. The square in Eastern Guinea denotes a dubious *S. pulchra* male paratype from Macenta.



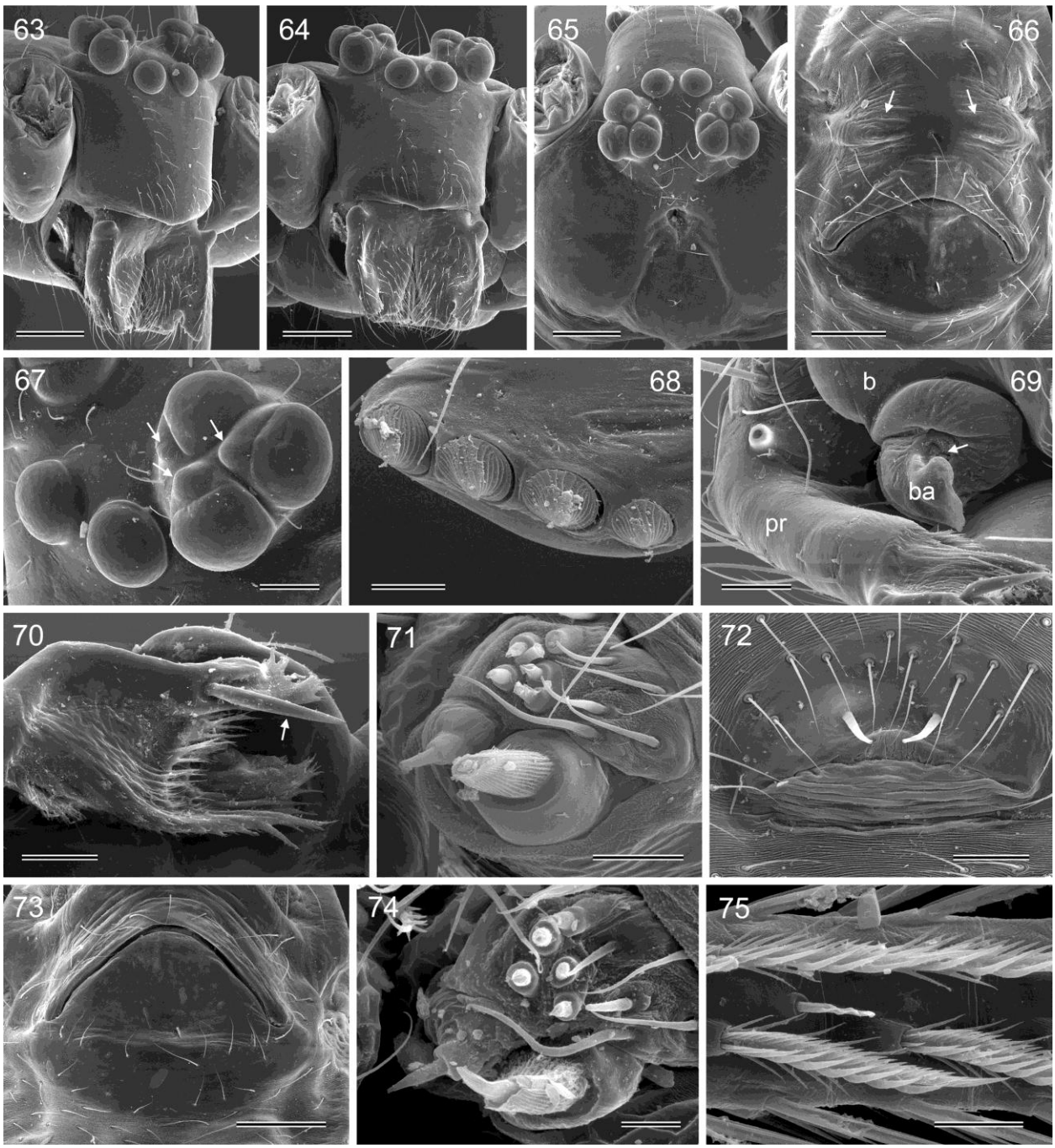
FIGURES 34-45. *Smeringopina pulchra* (Millot) (34-40) and *S. bineti* (Millot) (41-45). 34-36, 41. Males, dorsal, lateral, and ventral views. 37, 42. Female abdomens, ventral views; arrow points at U-shaped light element. 38-40, 43-45. Left male palps, prolateral, dorsal, and retrolateral views; b: bulb; co: coxa; fe: femur; pa: patella; pr: procursus; ta: tarsus; ti: tibia; tr: trochanter.



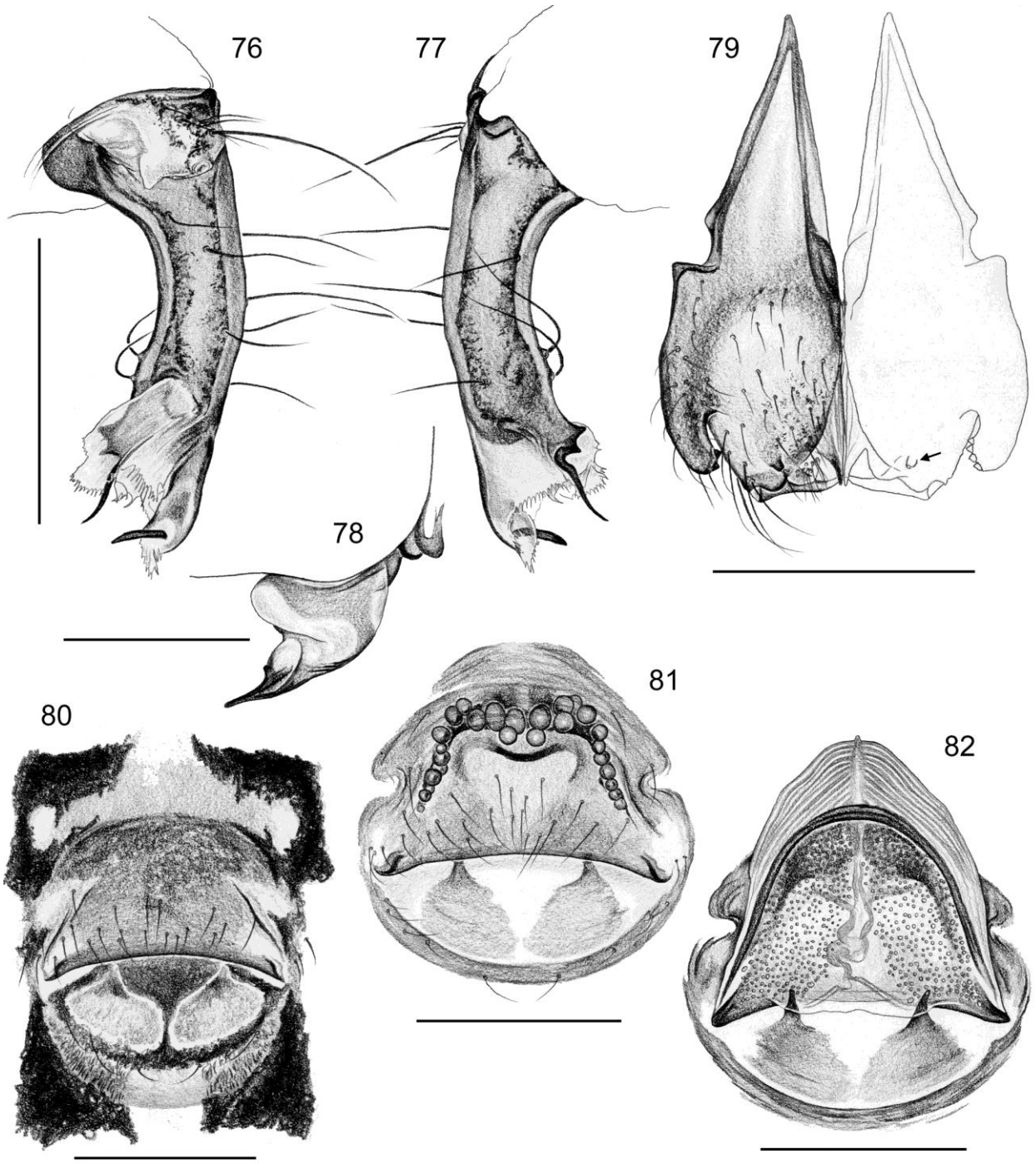
FIGURES 46-55. *Smeringopina guineensis* (Millot) (46-52, 55), *S. pulchra* (Millot) (53), and *S. bineti* (Millot) (54). 46-48. Male, dorsal, lateral, and ventral views. 49. Female abdomen, ventral view. 50-52. Left male palp, prolateral, dorsal, and retrolateral views. 53-55. Cleared female genitalia, dorsal views; arrows point at distinctive sclerotized areas of posterior epigynal plate.



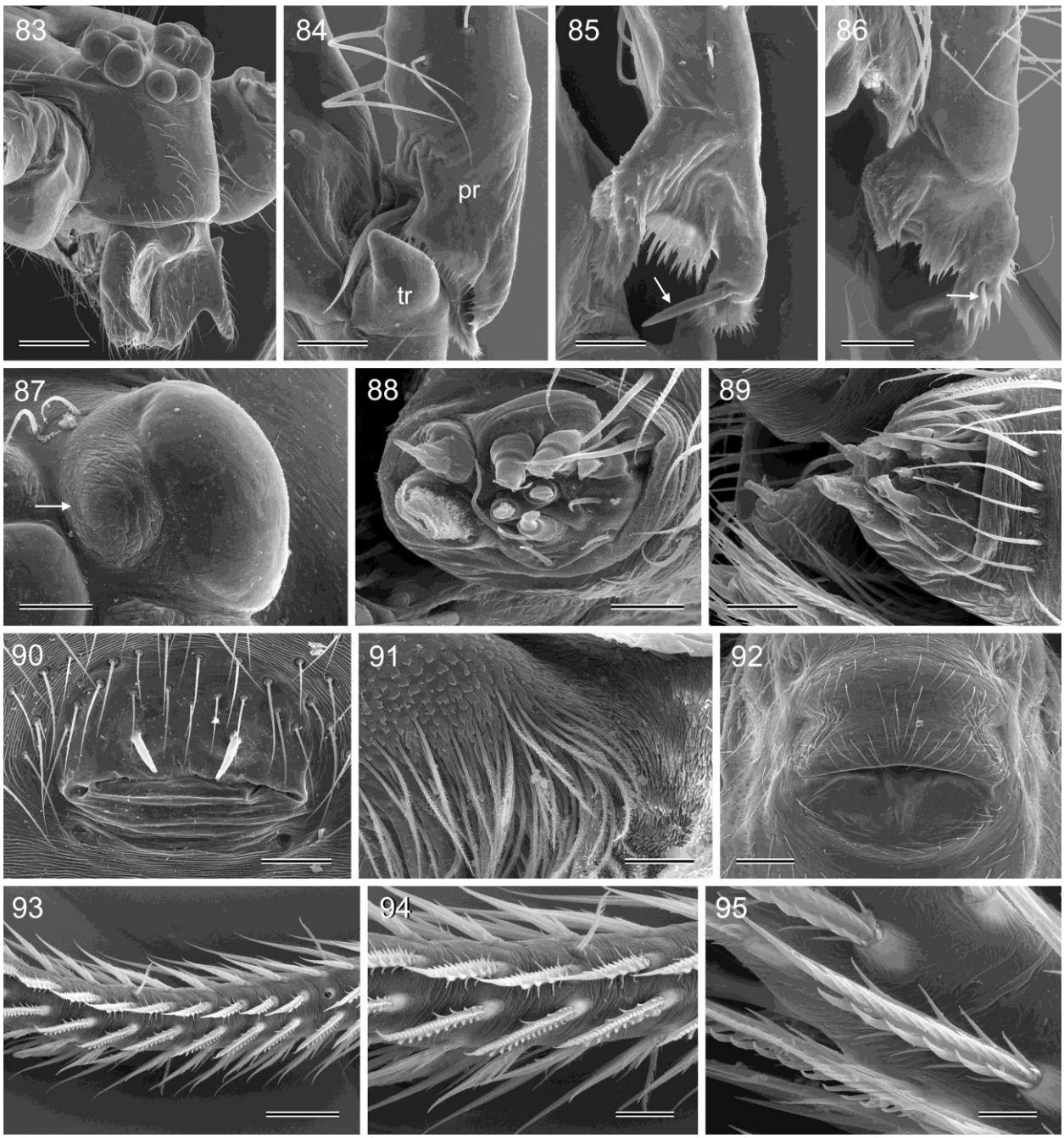
FIGURES 56-62. *Smeringopina pulchra* (Millot). 56-57. Left procursus, prolateral and retrolateral views; arrows point at distal sclerite embedded in membrane (56) and at distinctive curved hairs (57). 58. Left bulbal process, prolateral view. 59. Male chelicerae, frontal view. 60. Epigynum, ventral view. 61-62. Cleared female genitalia, ventral and dorsal views. Scale lines: 0.3 (58), 0.5 (56-57, 59-62).



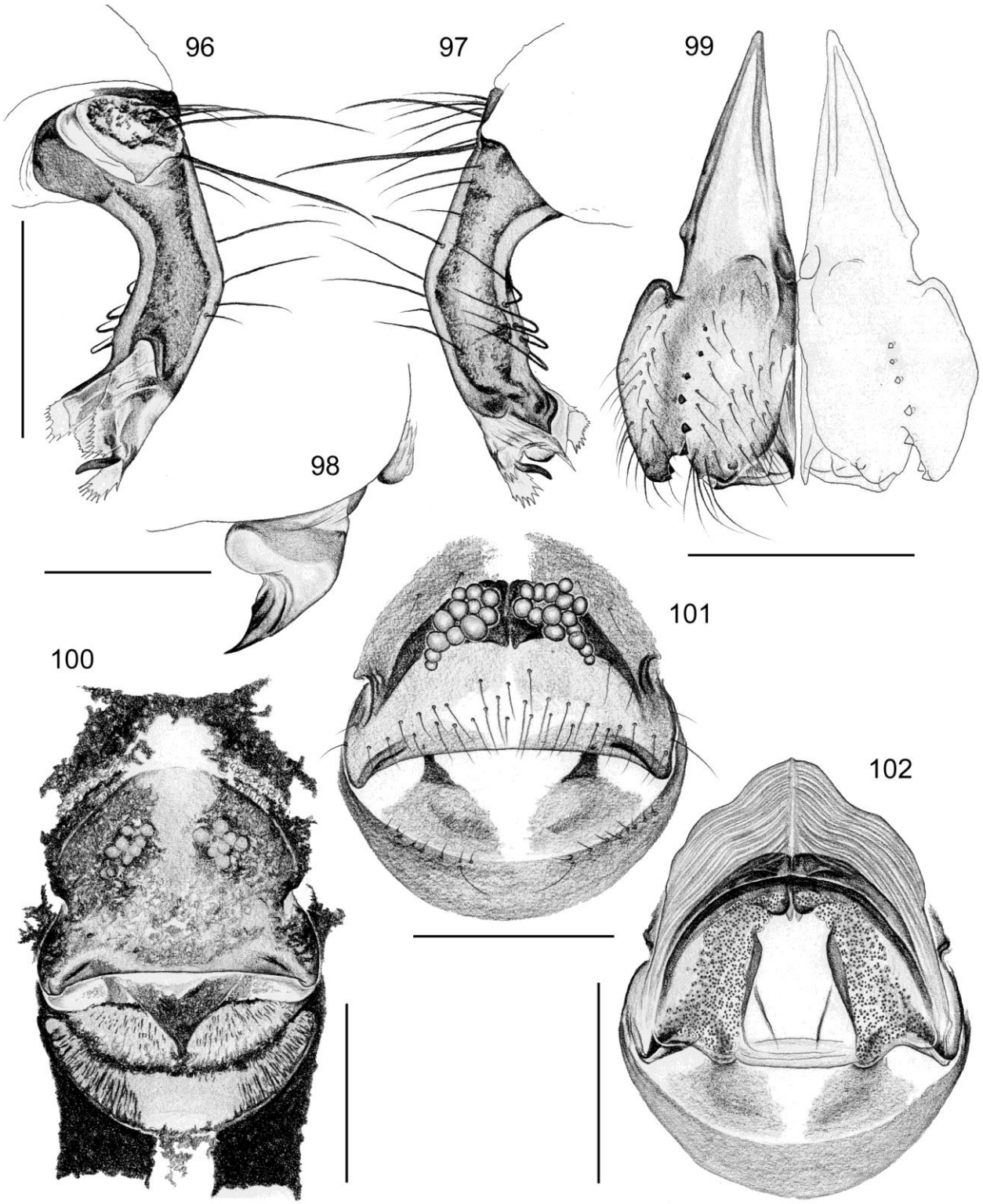
FIGURES 63-75. *Smeringopina pulchra* (Millot). 63-65. Male prosoma, oblique, frontal, and dorsal views. 66. Epigynum, ventral view; arrows point at humps. 67. Male ocular area with 'pseudo-lenses' (arrows). 68. Tip of right male cheliceral apophysis. 69. Right palp, distal view; arrow points at sperm duct opening. 70. Left procursus, prolateral view; arrow points at sclerite embedded in membrane. 71. Male ALS. 72. Male gonopore. 73. Posterior plate of epigynum, ventral view. 74. Female ALS. 75. Comb-hairs on female tarsus 4. Abbreviations: b: bulb; ba: bulbal apophysis; pr: procursus. Scale lines: 10 µm (74), 20 µm (68, 71, 75), 60 µm (70, 72), 80 µm (69), 100 µm (67), 200 µm (66, 73), 300 µm (63-65).



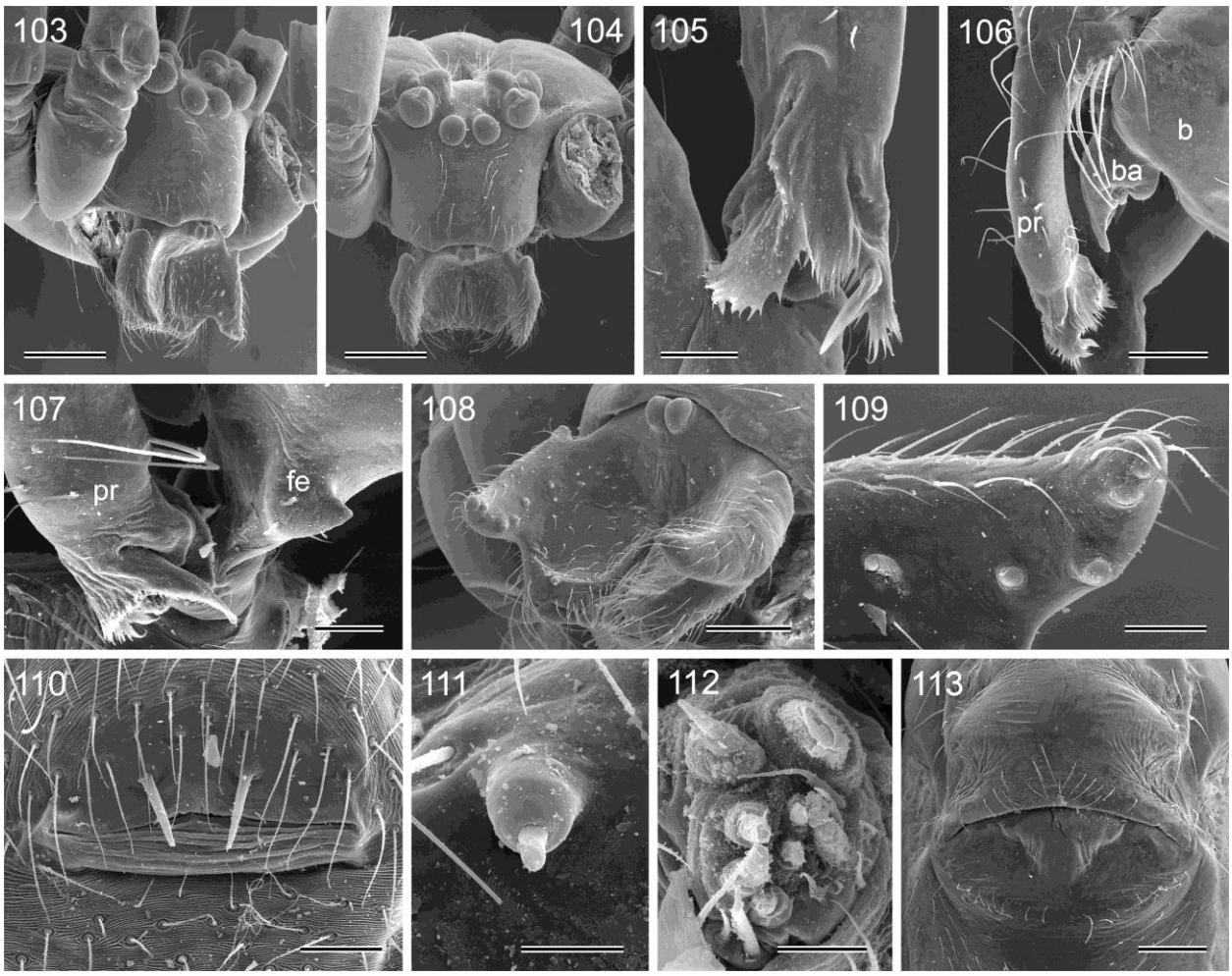
FIGURES 76-82. *Smeringopina bineti* (Millot). 76-77. Left procursus, prolateral and retrolateral views. 78. Left bulbal process, prolateral view. 79. Male chelicerae, frontal view; arrow points at single modified hair on enlarged hair basis. 80. Epigynum, ventral view. 81-82. Cleared female genitalia, ventral and dorsal views. Scale lines: 0.3 (78), 0.5 (76-77, 79-82).



FIGURES 83-95. *Smeringopina bineti* (Millot). 83. Male prosoma, oblique frontal view. 84. Right procursus, retrolateral view. 85. Left procursus, prolateral view; arrow points at moveable dorsal sclerite. 86. Right procursus, prolatero-dorsal view, male from near Koumbaya; arrow points at moveable dorsal sclerite. 87. Male PLE with 'pseudo-lens'(arrow). 88. Male ALS. 89. Male ALS and PMS. 90. Male gonopore. 91. Endite of left male palp, inner side. 92. Epigynum, ventral view. 93. Right tarsus 4, showing two rows of comb-hairs. 94-95. Comb-hairs on tarsus 4. Abbreviations: pr: procursus; tr: trochanter. Scale lines: 10 µm (95), 20 µm (88, 94), 30 µm (89, 91), 50 µm (87, 93), 60 µm (90), 80 µm (84, 85), 100 µm (86), 200 µm (92), 300 µm (83).



FIGURES 96-102. *Smeringopina guineensis* (Millot). 96-97. Left procursus, prolateral and retrolateral views. 98. Left bulbal process, prolateral view. 99. Male chelicerae, frontal view. 100. Epigynum, ventral view. 101-102. Cleared female genitalia, ventral and dorsal views. Scale lines: 0.3 (98), 0.5 (96-97, 99-102).



FIGURES 103-113. *Smeringopina guineensis* (Millot). 103-104. Male prosoma, oblique and frontal views. 105. Left procursus, prolateral view. 106. Right palp, dorsal view. 107. Left procursus and femur, retrolateral view. 108. Male chelicerae, distal view. 109. Tip of left cheliceral apophysis. 110. Male gonopore. 111. Modified hair on elevated basis on male chelicera. 112. Female ALS. 113. Epigynum, ventral view. Abbreviations: b: bulb; ba: bulbal apophysis; fe: femur; pr: procursus. Scale lines: 20 µm (111, 112), 60 µm (109, 110), 80 µm (105), 100 µm (107), 200 µm (106, 108, 113), 400 µm (103, 104).

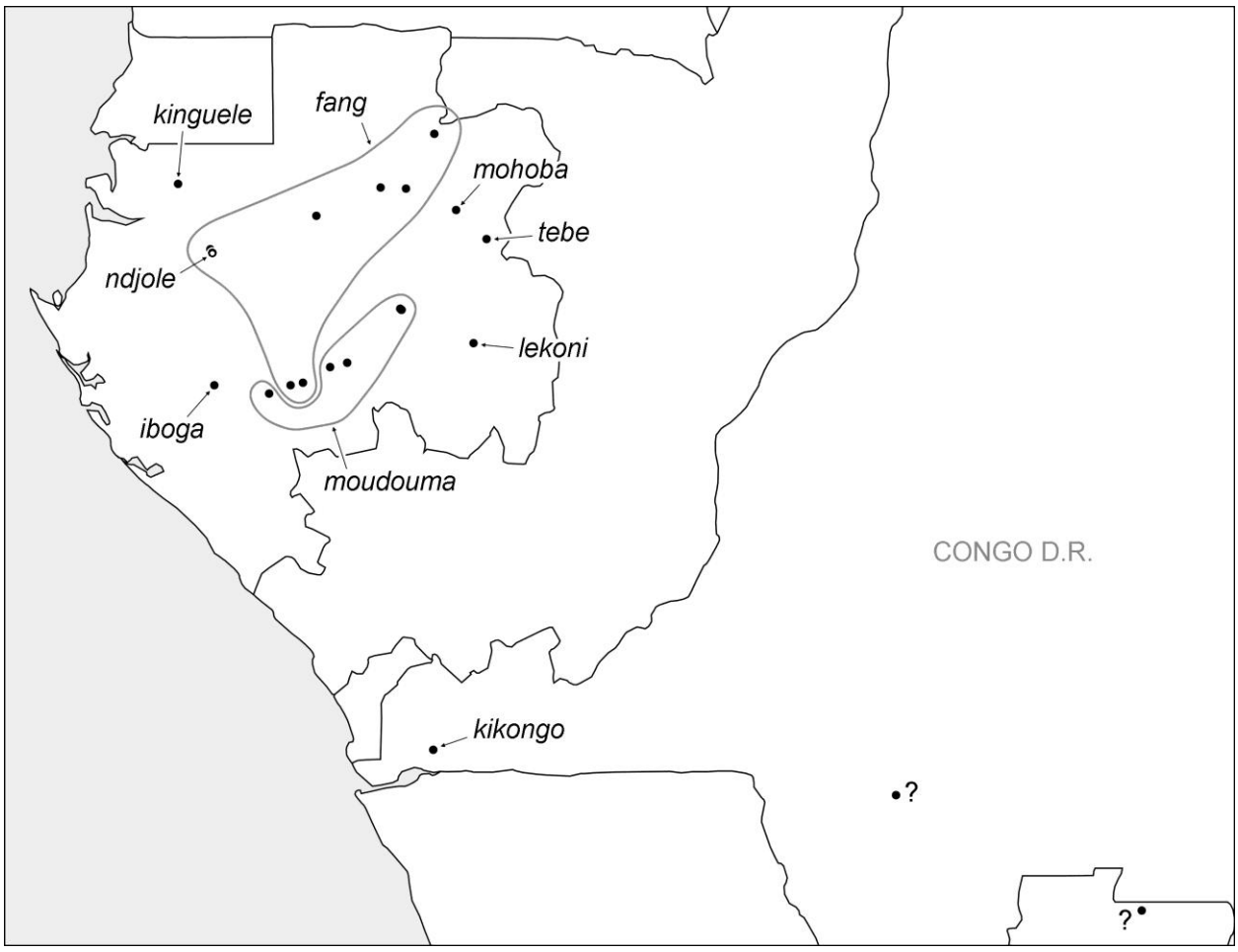
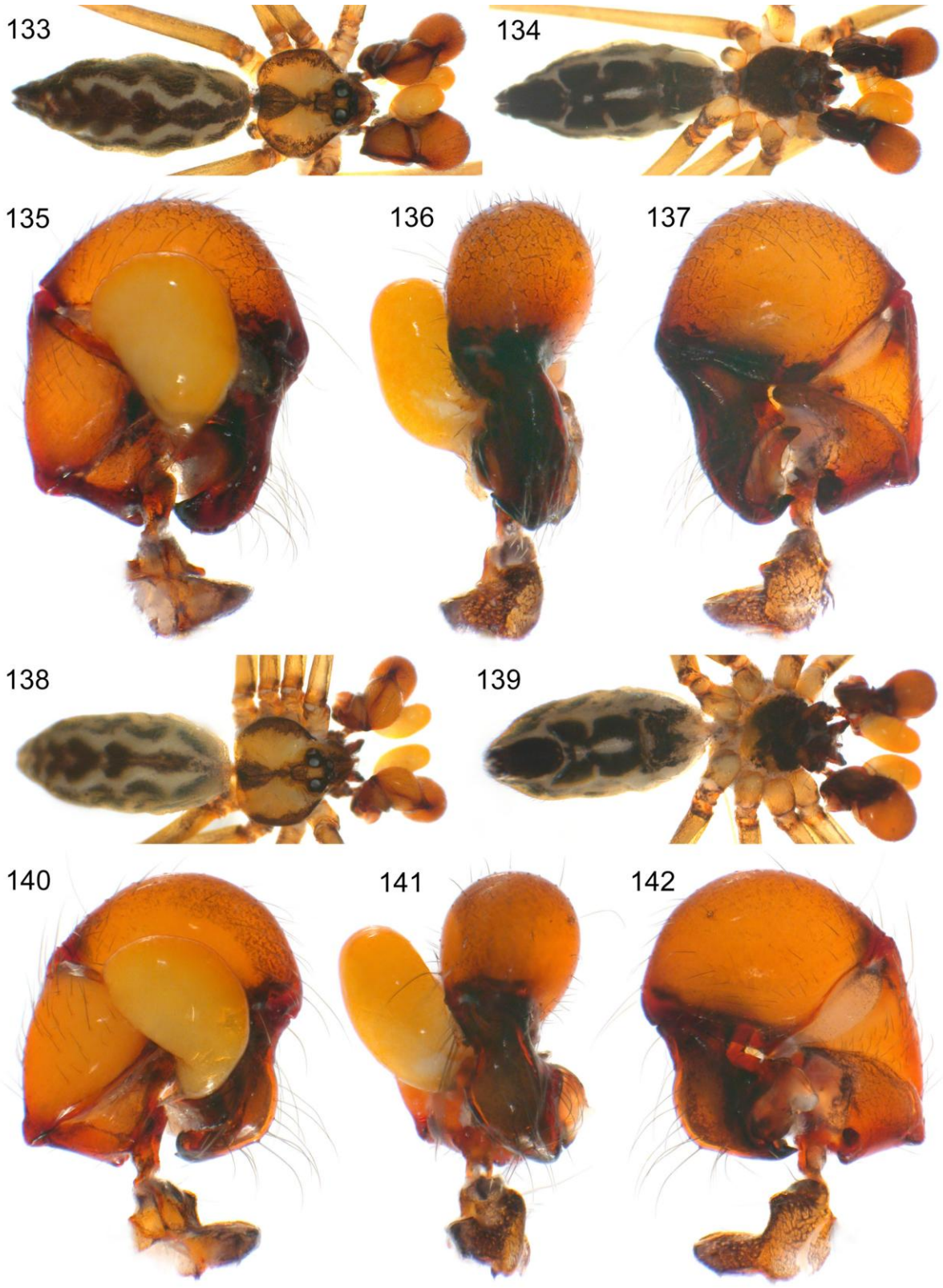


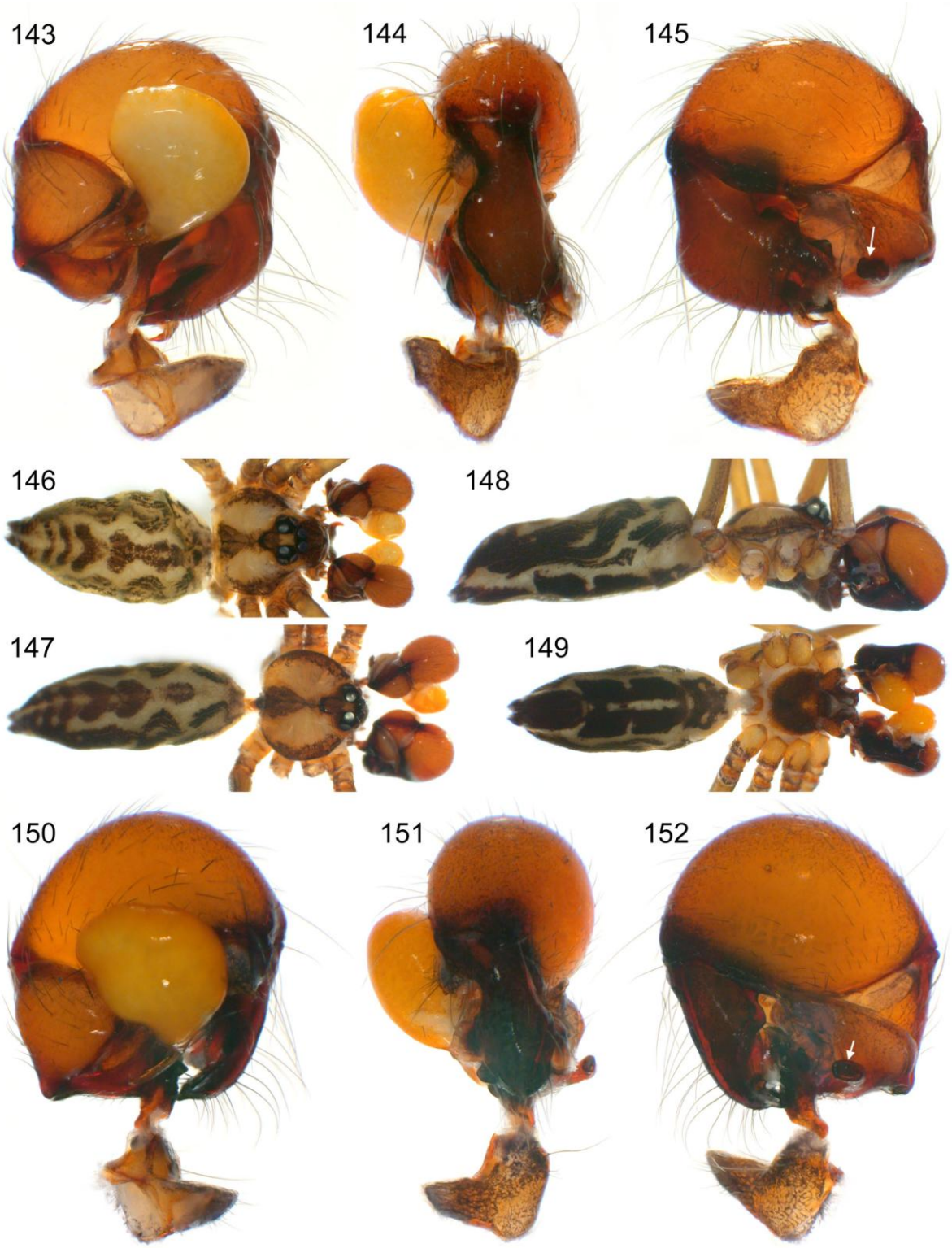
FIGURE 114. Known distribution of the *lekoni* species group. Question marks denote females of undescribed species (in MRAC and MCZ) that may belong to this species group.

FIGURES 115-124. *Smeringopina kinguele* n. sp. (115-119) and *S. mohoba* n. sp. (120-124). 115-116, 120-121. Males, dorsal and ventral views. 117-119, 122-124. Left male palps, prolateral, dorsal, and retrolateral views.

FIGURES 125-132. *Smeringopina fang* n. sp. 125-126. Male, dorsal and ventral views. 127-132. Left male palps of males from Djidji (127-129) and Ndjolé (130-132), prolateral, dorsal, and retrolateral views. Arrows point at prolateral femur-patella joints (127, 130) and at distinctive small apophysis directed toward dorsally (129).

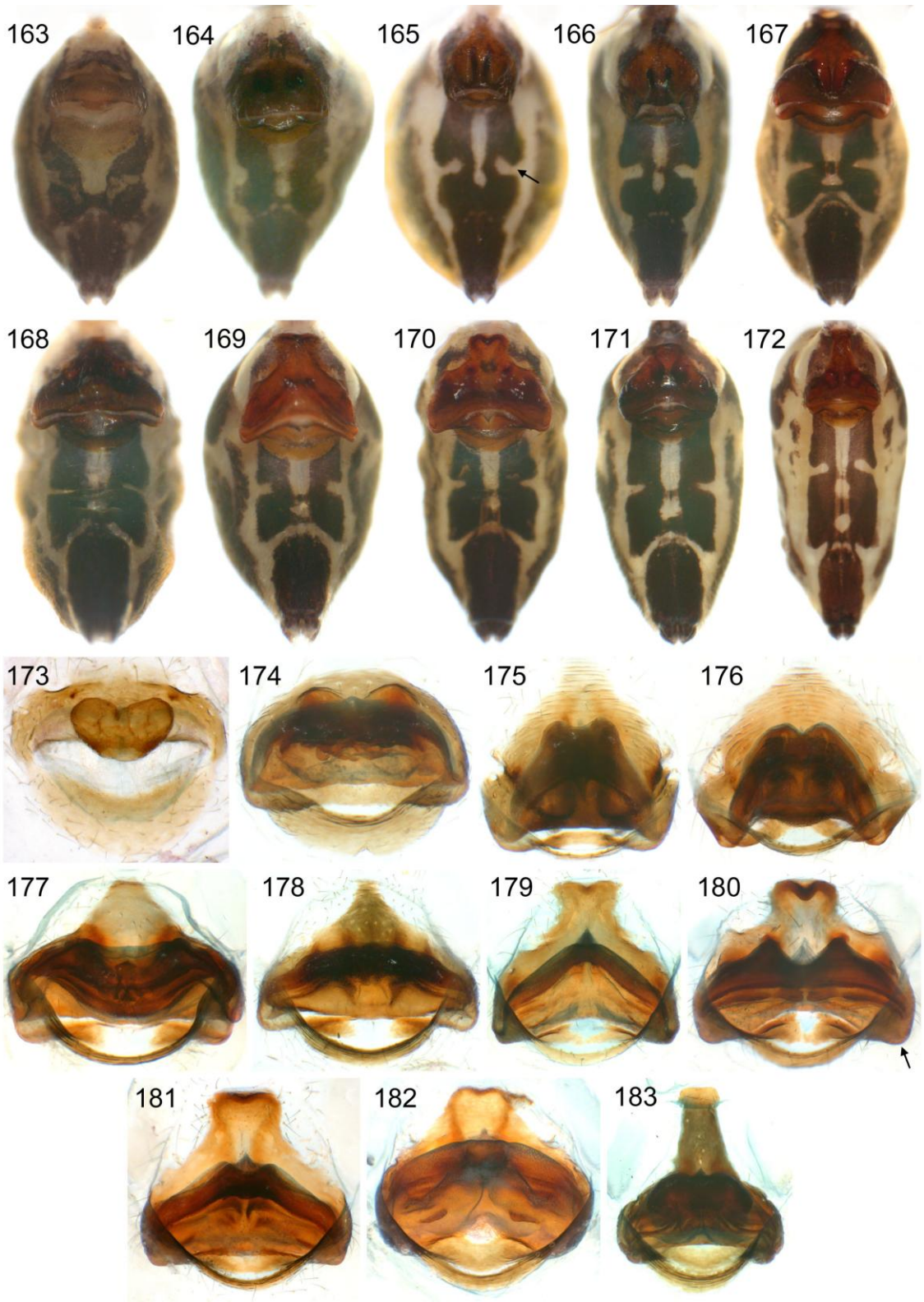


FIGURES 133-142. *Smeringopina tebe* n. sp. (133-137) and *S. lekoni* n. sp. (138-142). 133-134, 138-139. Males, dorsal and ventral views. 135-137, 140-142. Left male palps, prolateral, dorsal, and retrolateral views.

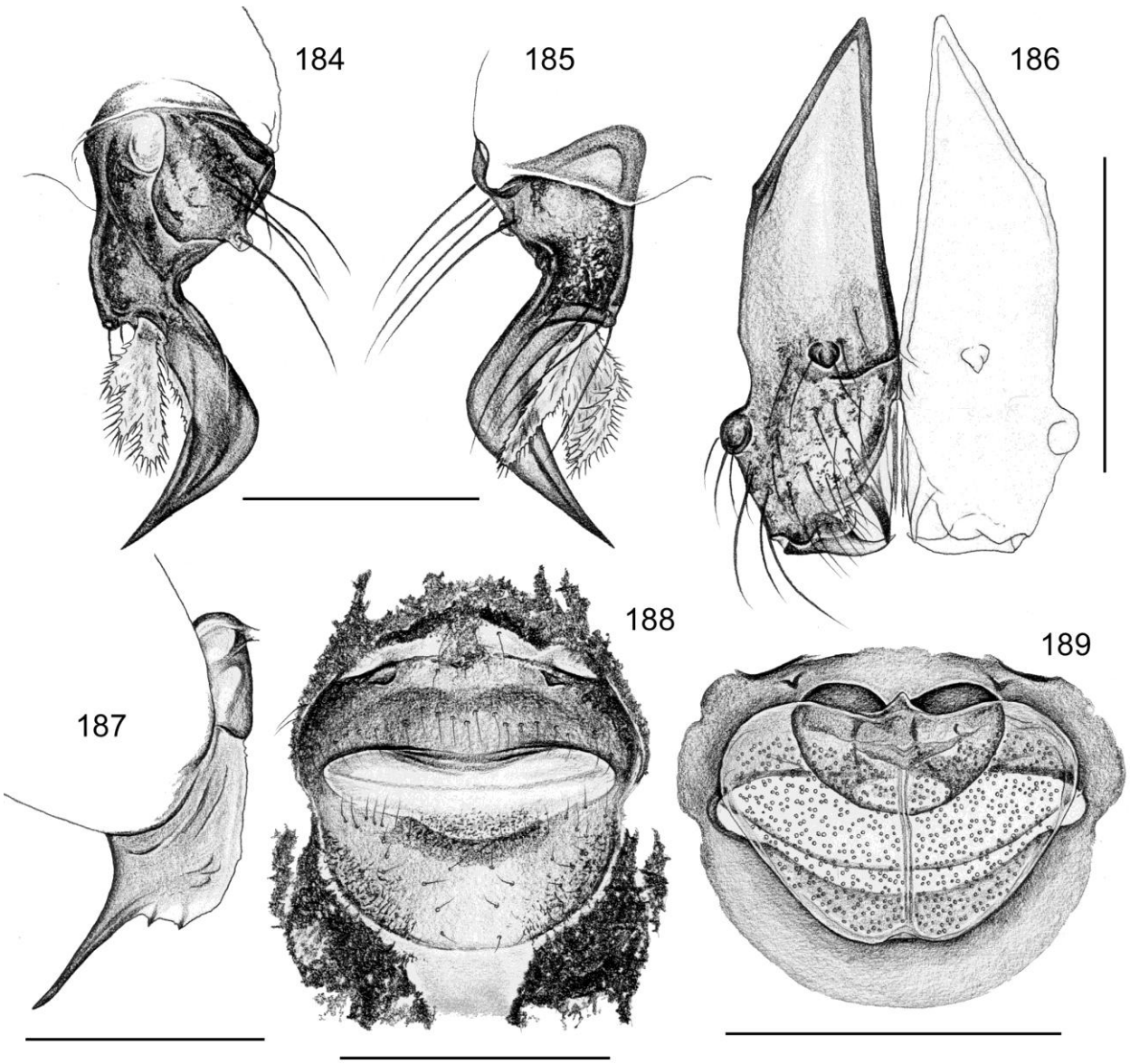


FIGURES 143-152. *Smeringopina iboga* n. sp. (143-146) and *S. moudouma* n. sp. (147-152). 143-145, 150-152. Left male palps, prolateral, dorsal, and retrolateral views. 146-149. Males, dorsal, lateral, and ventral views. Arrows point at distinctive retrolateral femur apophyses directed toward ventrally.

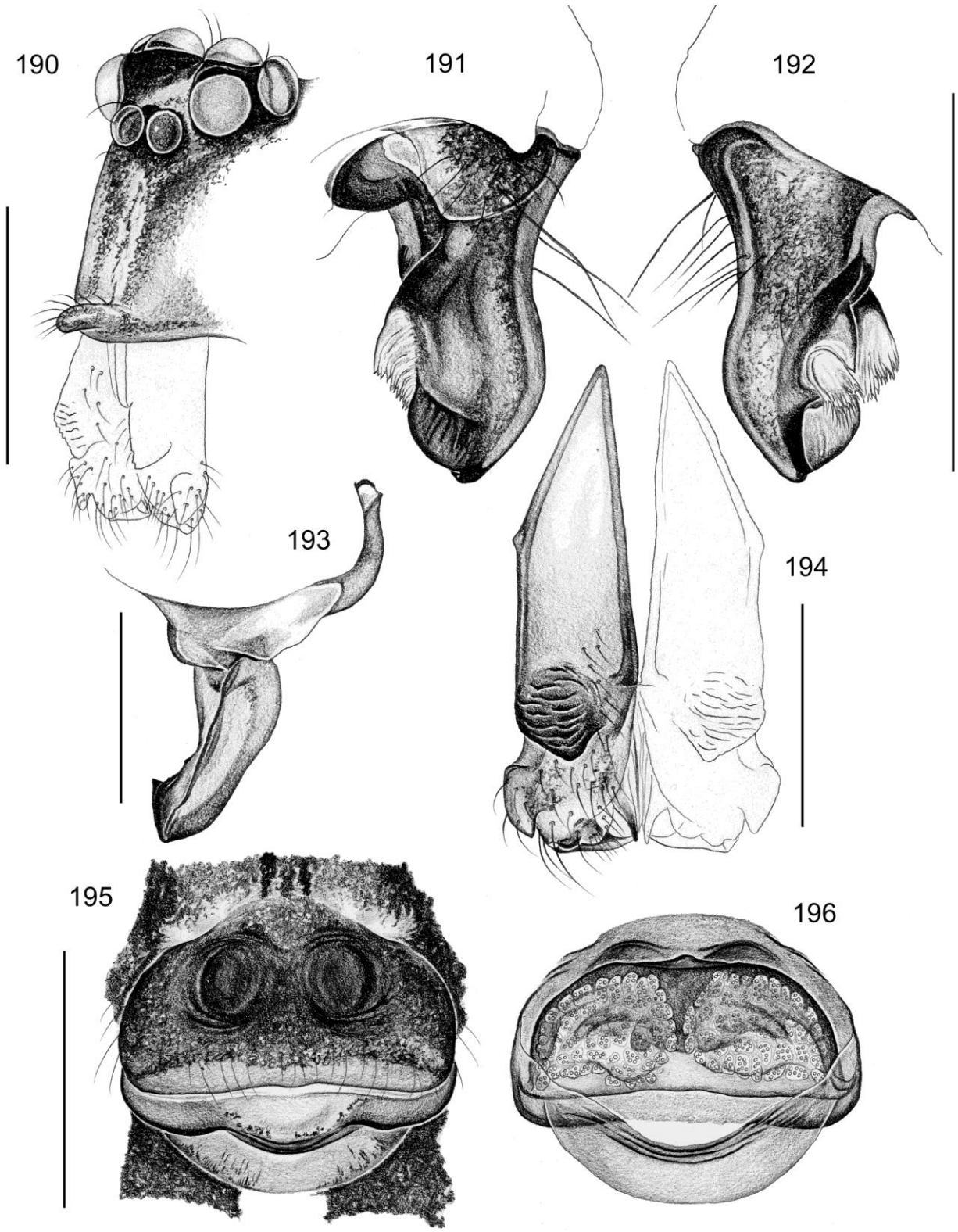
FIGURES 153-162. *Smeringopina ndjole* n. sp. (153-157) and *S. kikongo* n. sp. (158-162). 153-154, 158-159. Males, dorsal and ventral views. 155-157, 160-162. Left male palps, prolateral, dorsal, and retrolateral views. Arrow points at serrated trochanter.



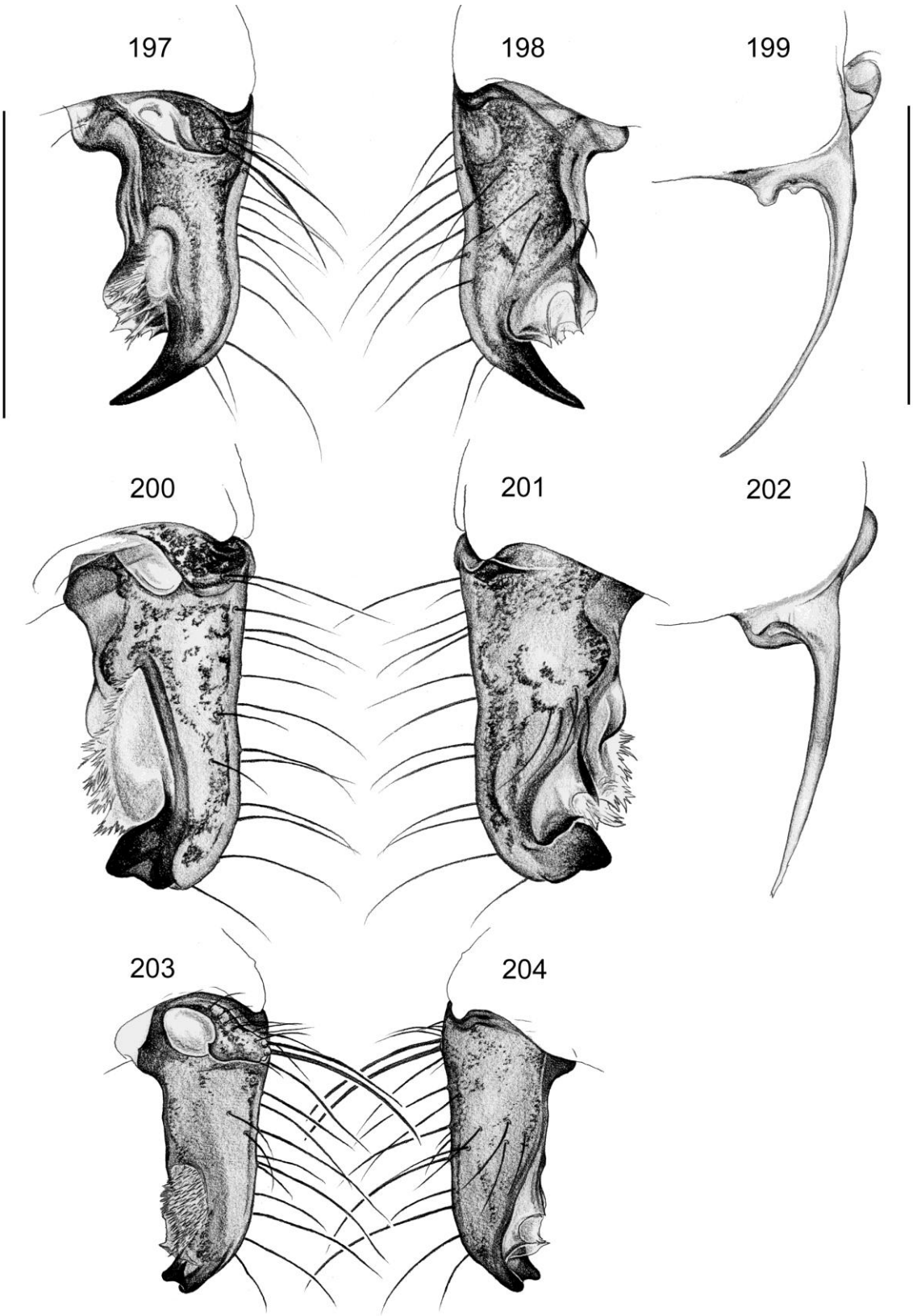
FIGURES 163-183. Female abdomens, ventral views, and cleared female genitalia, dorsal views, *lekoni* species group. 163, 173. *Smeringopina kinguele* n. sp. 164, 174. *S. mohoba* n. sp. 165-166, 175-176. *S. fang* n. sp. from Djidji (165, 175) and Ndjolé (166, 176). 167, 177. *S. tebe* n. sp. 168, 178. *S. lekoni* n. sp. 169, 179. *S. iboga* n. sp. 170, 180-181. *S. moudouma* n. sp. from Moudouma (170, 180) and Iboundji (181). 171, 182. *S. ndjole* n. sp. 172, 183. *S. kikongo* n. sp. Arrows point at lateral constriction of dark band (165) and at laterally overhanging fold (180).



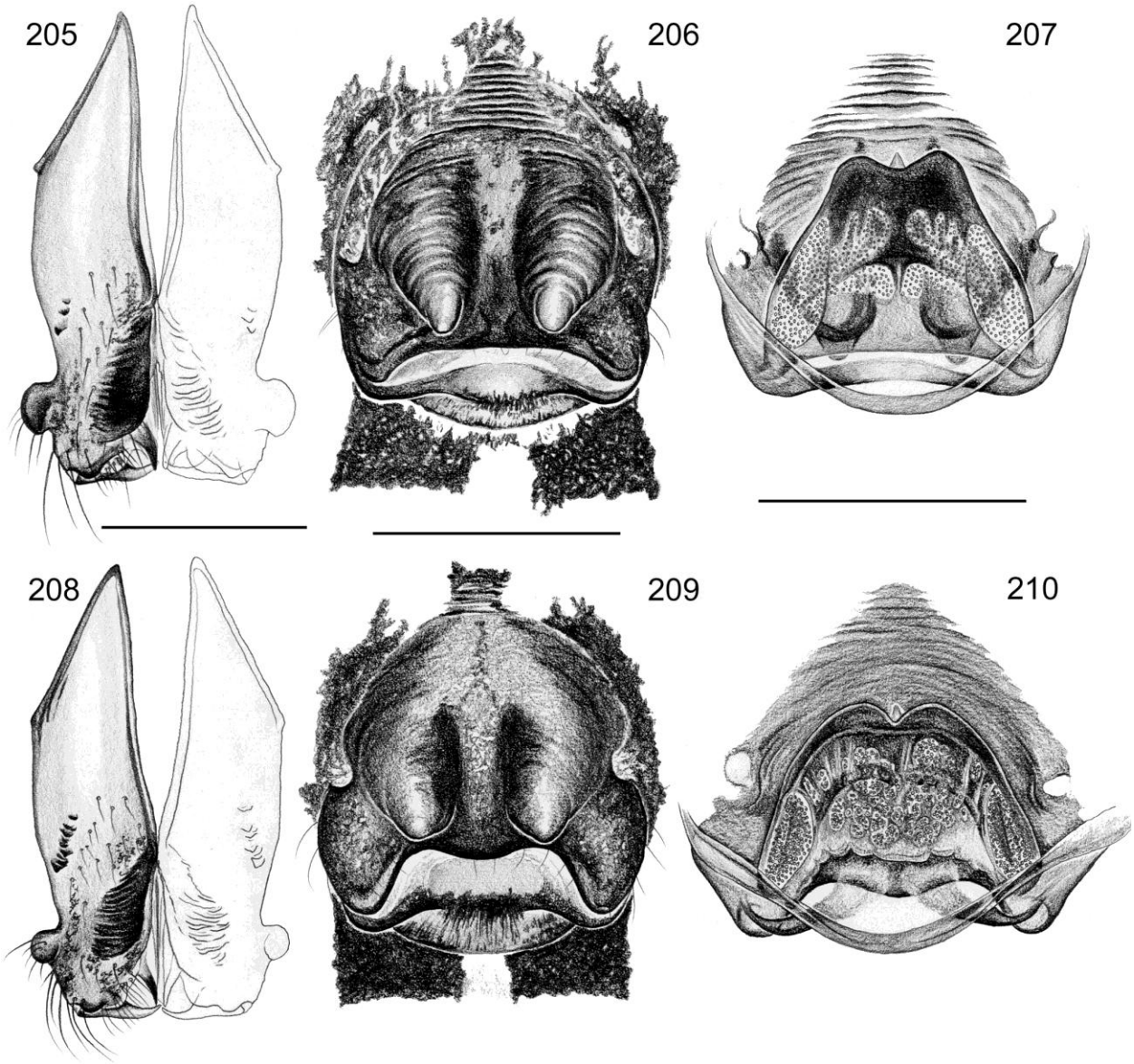
FIGURES 184-189. *Smeringopina kinguele* n. sp. 184-185. Left procursus, prolateral and retrolateral views. 186. Male chelicerae, frontal view. 187. Left bulbal process, prolateral view. 188. Epigynum, ventral view. 189. Cleared female genitalia, dorsal view. Scale lines: 0.2 (184-185, 187), 0.3 (186), 0.5 (188-189).



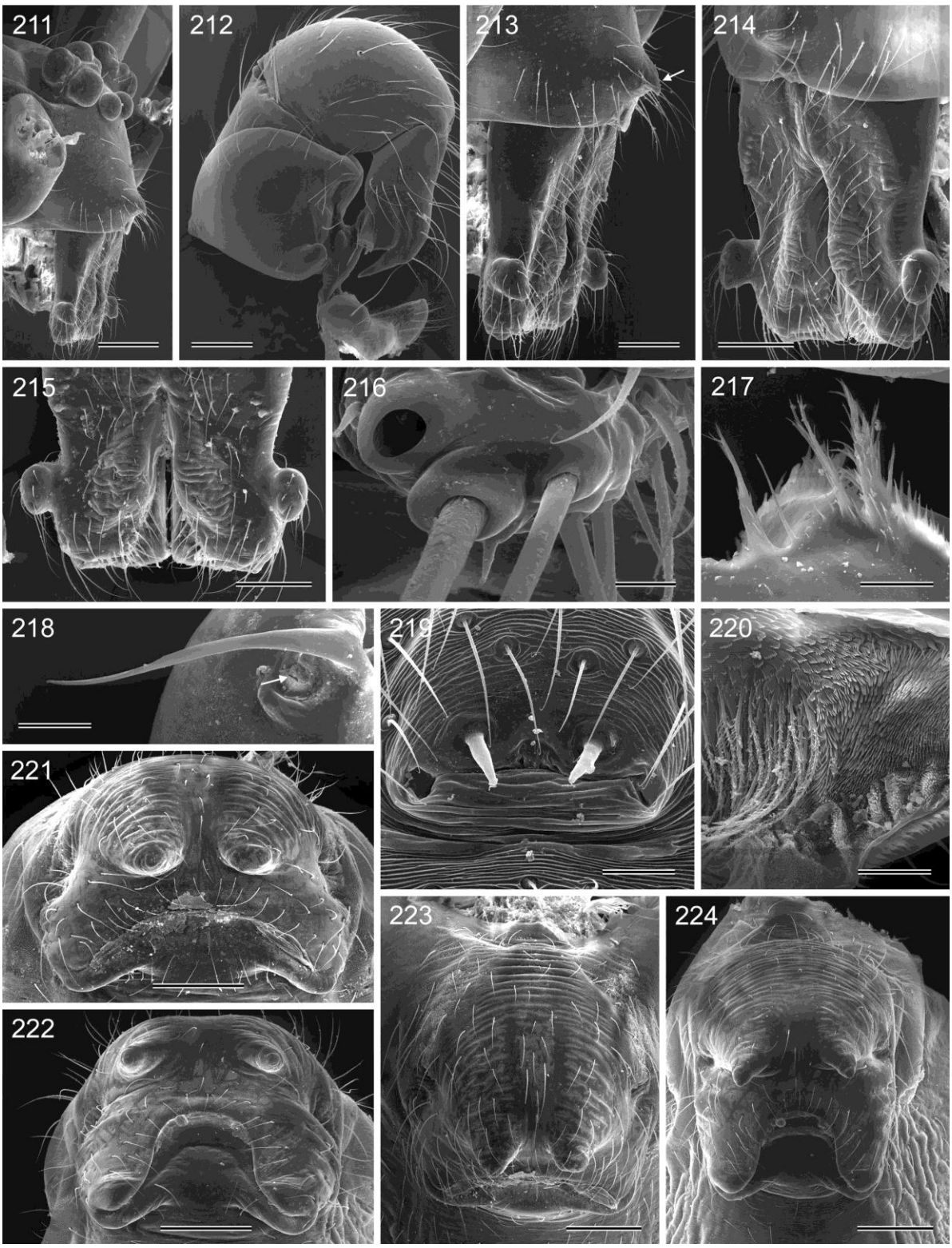
FIGURES 190-196. *Smeringopina mohoba* n. sp. 190. Male clypeus and ocular area, oblique frontal view. 191-192. Left procursus, prolateral and retrolateral views. 193. Left bulbal process, prolateral view. 194. Male chelicerae, frontal view. 195. Epigynum, ventral view. 196. Cleared female genitalia, dorsal view. Scale lines: 0.2 (193), 0.3 (194), 0.5 (190-192, 195-196).



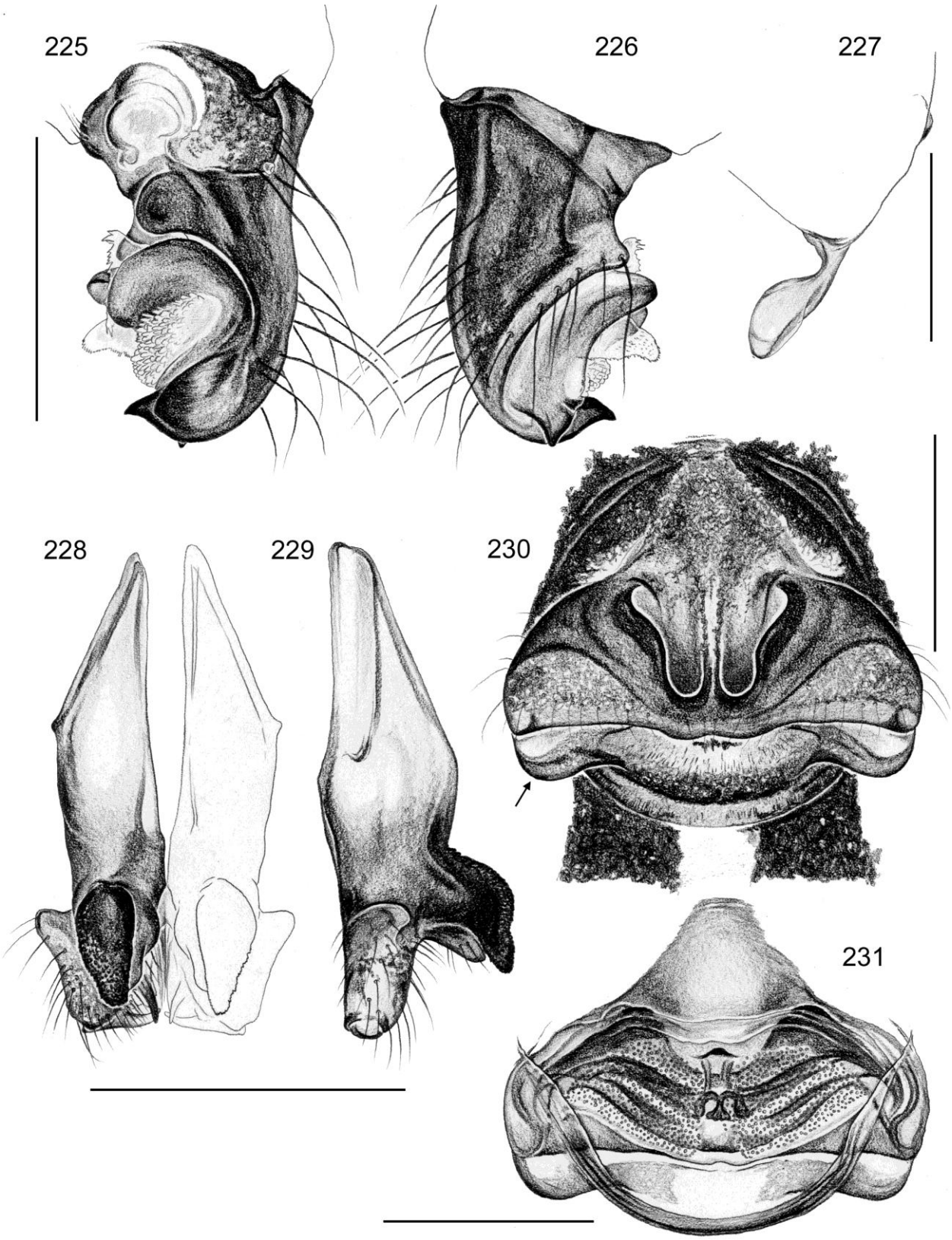
FIGURES 197-204. *Smeringopina fang* n. sp., males from Djidji (type locality; 197-199), Ndjolé (200-202) and Massif du Chaillu (203-204). 197-198, 200-201, 203-204. Left procursi, prolateral and retrolateral views. 199, 202. Left bulbal processes, prolateral views. Scale lines: 0.3 (bulbs, at same scale), 0.5 (procursi, at same scale).



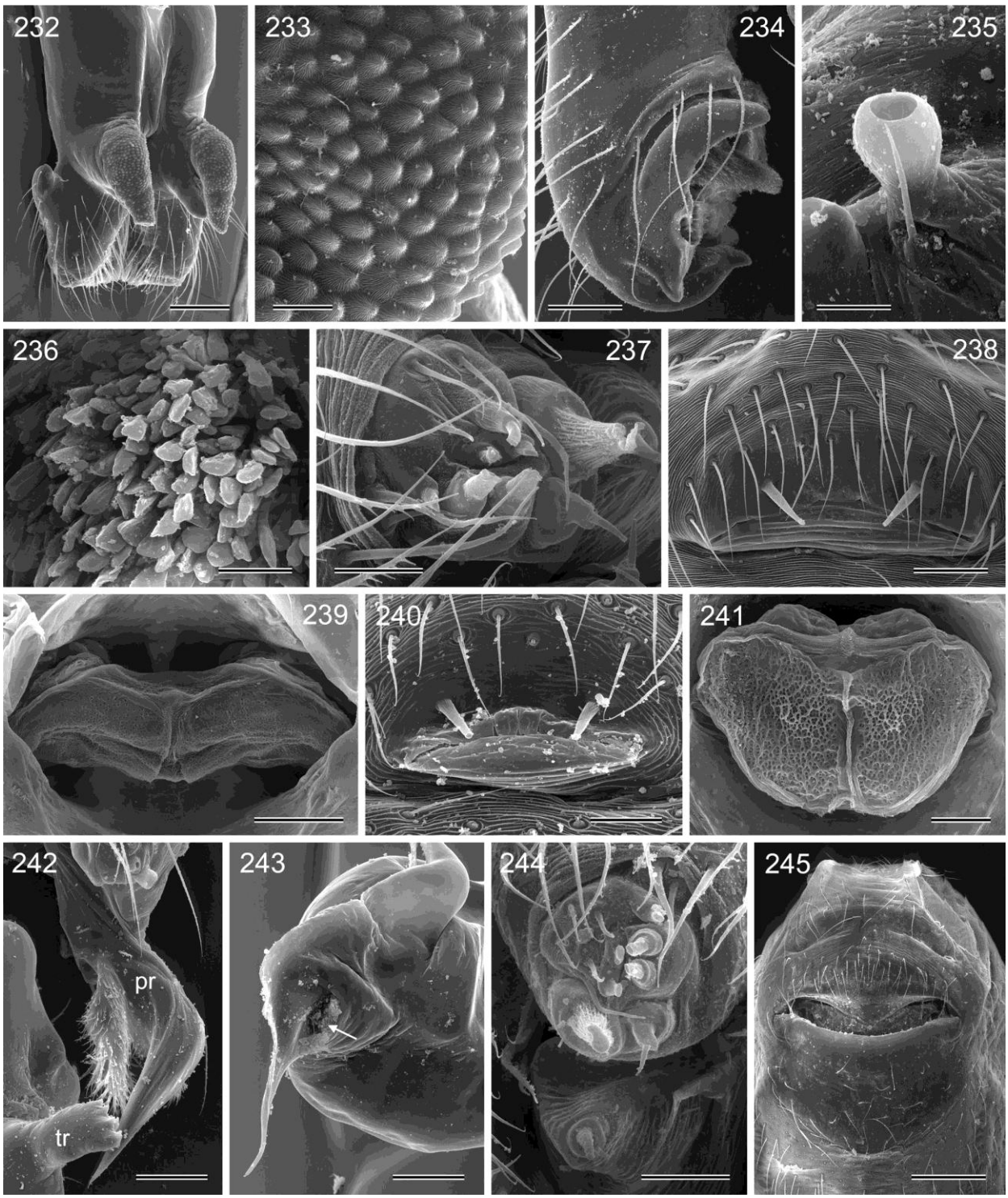
FIGURES 205-210. *Smeringopina fang* n. sp., specimens from Djidji (type locality; 205-207) and Ndjolé (208-210). 205, 208. Male chelicerae, frontal views. 206, 209. Epigyna, ventral views. 207, 210. Cleared female genitalia, dorsal views. Scale lines: 0.3 (chelicerae, at same scale), 0.5 (epigyna, cleared genitalia).



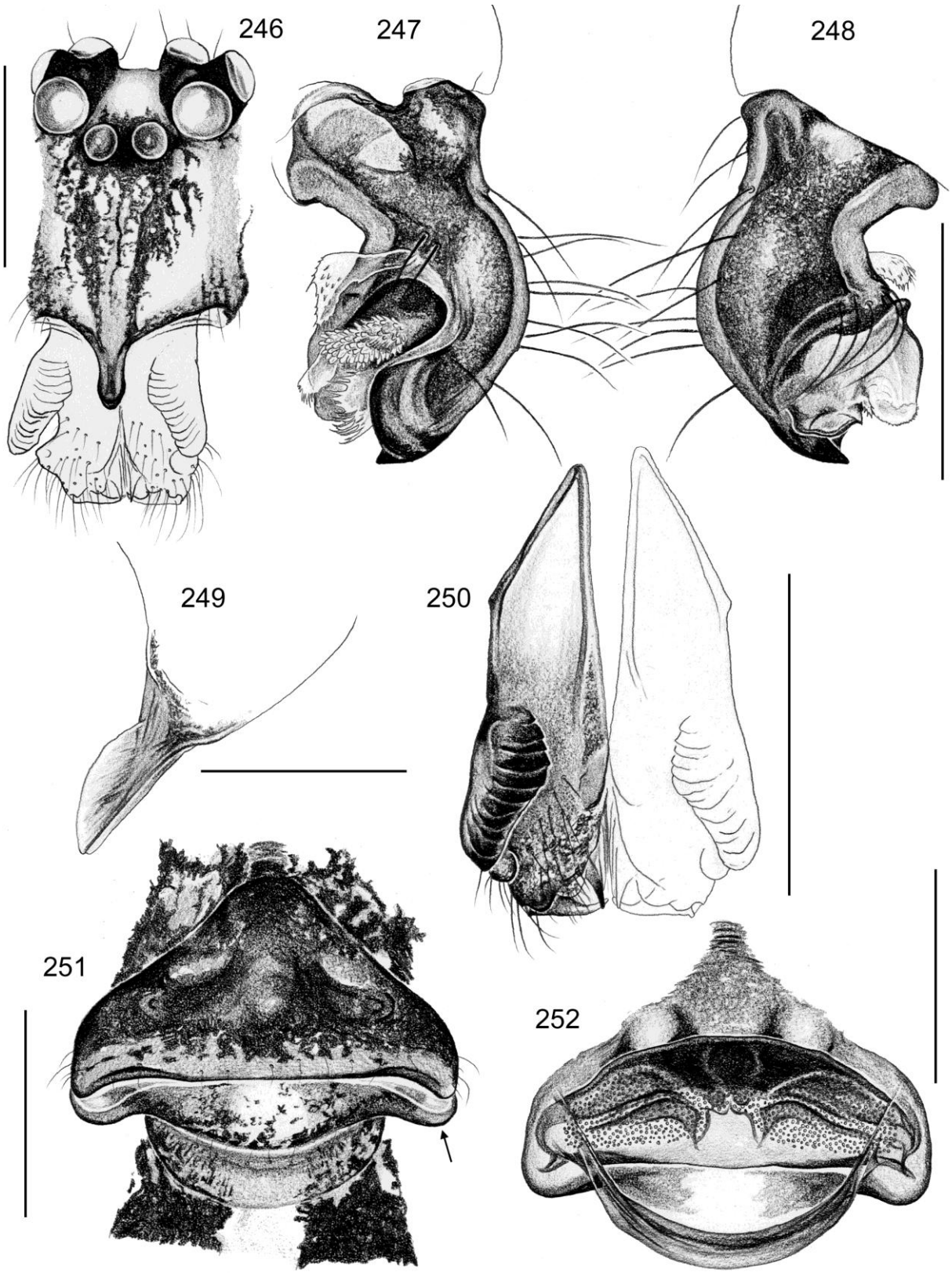
FIGURES 211-224. *Smeringopina fang* n. sp. 211. Male prosoma, frontal part in lateral view. 212. Right male palp, retrolateral view. 213-214. Male clypeus and chelicerae, lateral and oblique views; arrow points at clypeus apophysis. 215. Male chelicerae, frontal view. 216. Palpal tarsal organ. 217. Membranous processes on left procursus, prolateral view. 218. Bulbal apophysis; arrow points at sperm duct opening. 219. Male gonopore. 220. Male palpal endite, internal view. 221-222. Epigyna, ventral (slightly posterior) views, from Djidji (221) and Mayebout (222). 223-224. Epigyna, ventral views, from Djidji (223) and Mayebout (224). Scale lines: 10 µm (216), 30 µm (219, 220), 40 µm (217), 60 µm (218), 100 µm (213-215), 200 µm (211-212, 221-224).



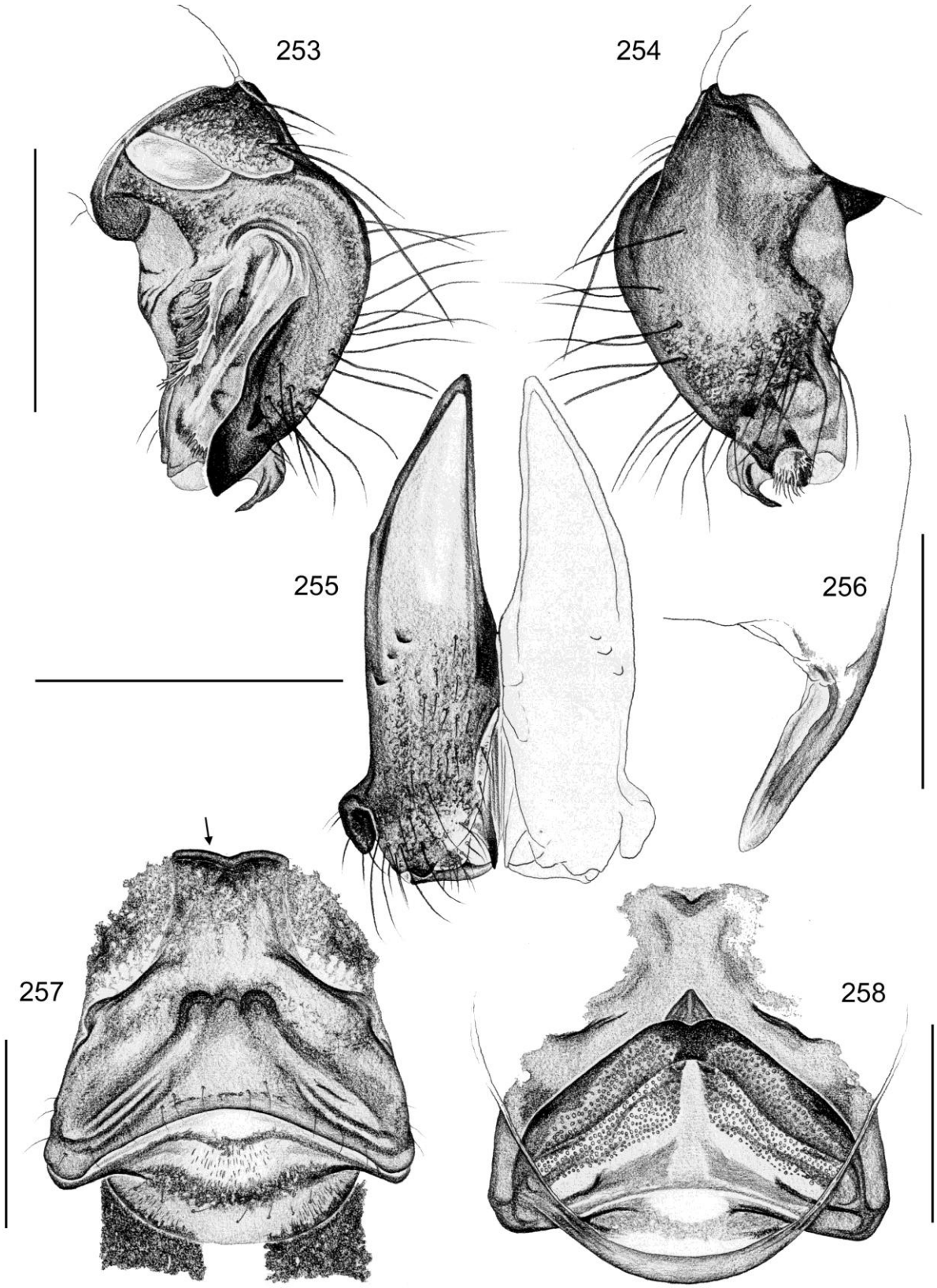
FIGURES 225-231. *Smeringopina tebe* n. sp. 225-226. Left procursus, prolateral and retrolateral views. 227. Left bulbal process, prolateral view. 228-229. Male chelicerae, frontal and lateral views. 230. Epigynum, ventral view; arrow points at lateral overhanging fold. 231. Cleared female genitalia, dorsal view. Scale lines: 0.3 (227), 0.5 (225-226, 228-231).



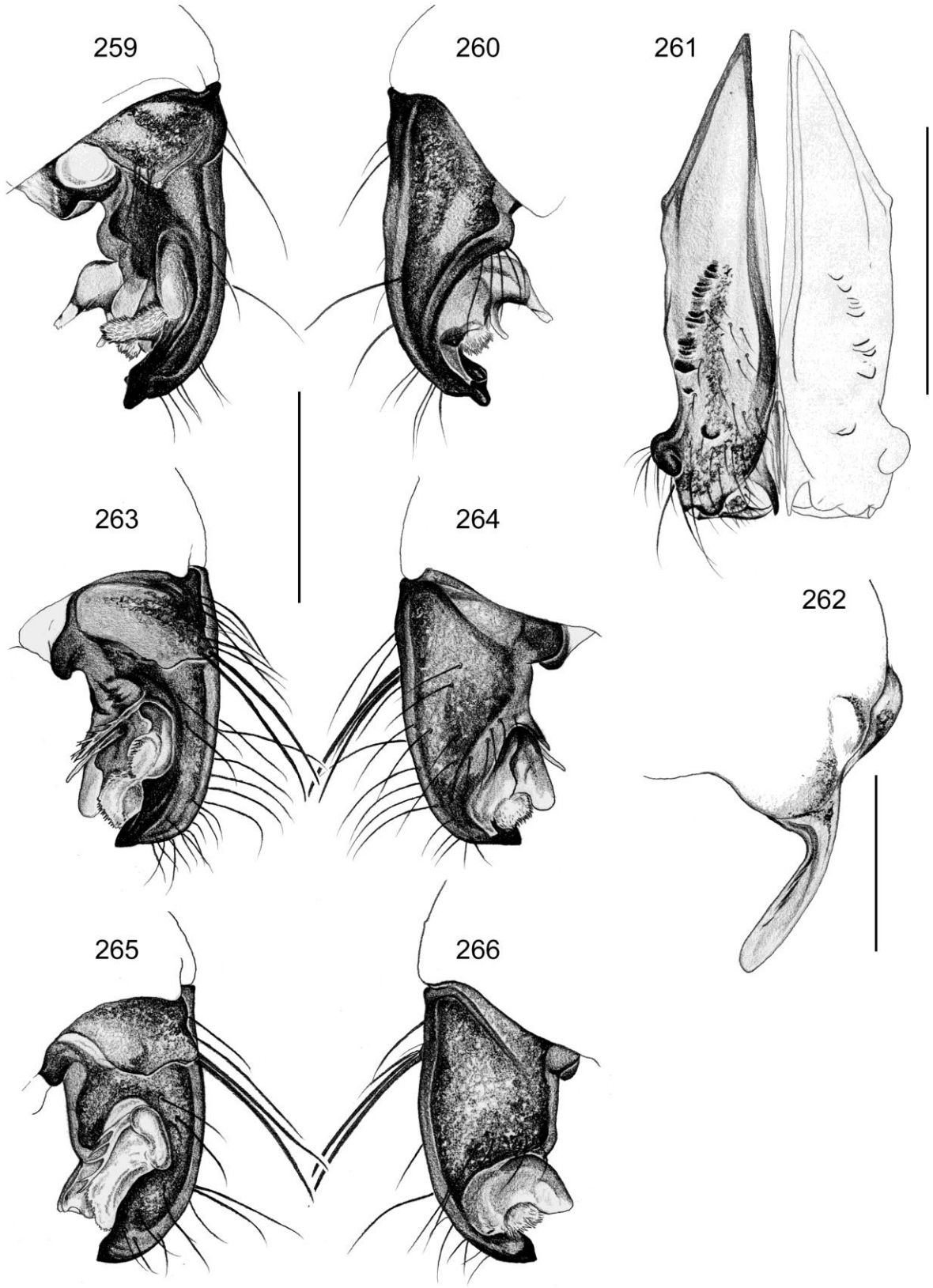
FIGURES 232-245. *Smeringopina tebe* n. sp. (232-240) and *S. kinguele* n. sp. (241-245). 232. Male chelicerae, oblique view. 233. Sculpture on male cheliceral apophysis. 234. Left procursus, retrolateral view. 235. Male palpal tarsal organ. 236. Membranous processes on left procursus. 237. Male ALS. 238. Male gonopore. 239. Cleared female genitalia, dorsal view. 240. Male gonopore. 241. Cleared female genitalia, dorsal view. 242. Left procursus (and trochanter apophysis), prolateral view. 243. Left bulb, distal view; arrow points at sperm duct opening. 244. Female ALS and PMS. 245. Epigynum, ventral view. Abbreviations: pr: procursus; tr: trochanter. Scale lines: 10 µm (233), 20 µm (235-237, 244), 30 µm (240), 50 µm (238), 60 µm (242-243), 100 µm (232, 234, 241), 200 µm (239, 245).



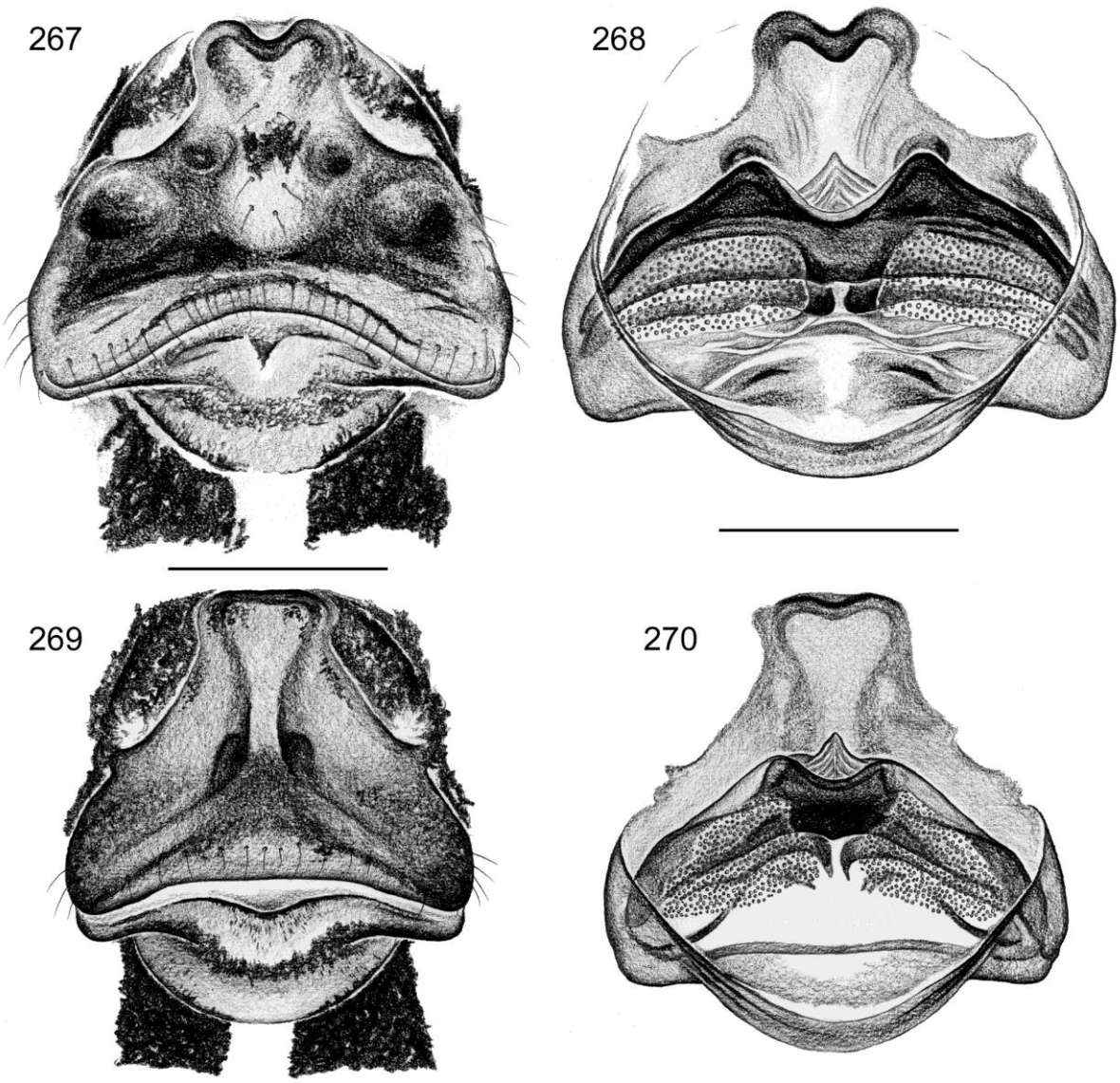
FIGURES 246-252. *Smeringopina lekoni* n. sp. 246. Male clypeus and ocular area, oblique frontal view. 247-248. Left procursus, prolateral and retrolateral views. 249. Left bulbal process, prolateral view. 250. Male chelicerae, frontal view. 251. Epigynum, ventral view; arrow points at overhanging fold. 252. Cleared female genitalia, dorsal view. Scale lines: 0.2 (249), 0.5 (246-248, 250-252).



FIGURES 253-258. *Smeringopina iboga* n. sp. 253-254. Left procursus, prolateral and retrolateral views. 255. Male chelicerae, frontal view. 256. Left bulbal process, prolateral view. 257. Epigynum, ventral view; arrow points at frontal ridge. 258. Cleared female genitalia, dorsal view. Scale lines: 0.3 (256), 0.5 (253-255, 257-258).

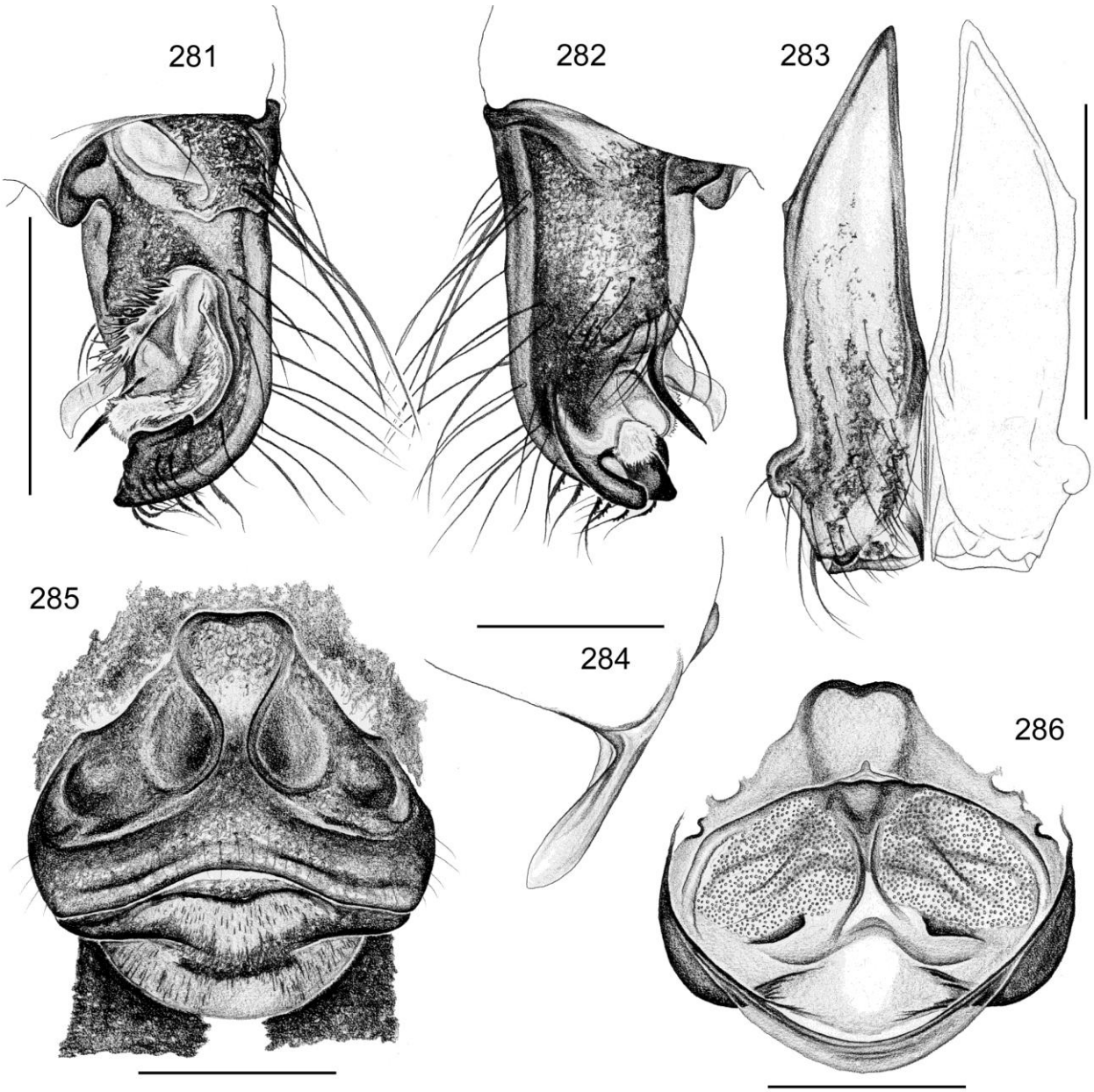


FIGURES 259-266. *Smeringopina moudouma* n. sp., males from Moudouma (type locality; 259-262), near Lastourville north of Ogooué River (263-264) and Massif du Chaillu near Iboundji (265-266). 259-260, 263-266. Left procursi, prolateral and retrolateral views. 261. Male chelicerae, frontal view. 262. Left embolus, prolateral view. Scale lines: 0.3 (262), 0.5 (259-261, 263-266; all procursi at same scale).

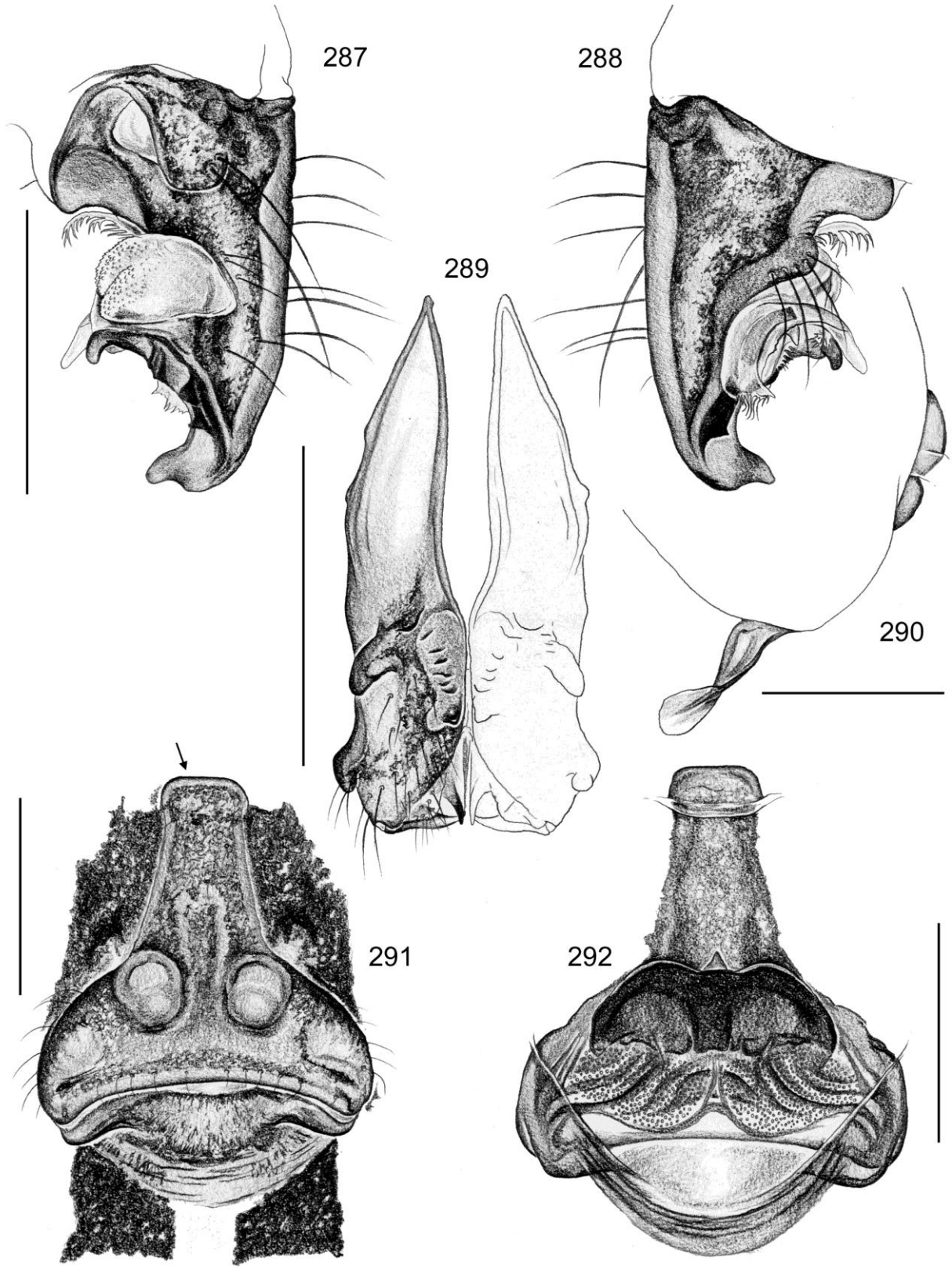


FIGURES 267-270. *Smeringopina moudouma* n. sp., females from Moudouma (type locality; 267-268) and Massif du Chaillu near Iboundji (269-270). 267, 269. Epigyna, ventral views. 268, 270. Cleared female genitalia, dorsal views. Scale lines: 0.5.

FIGURES 271-280. *Smeringopina moudouma* n. sp. 271. Male prosoma, frontal view (Pahon Pira); arrow points at clypeus apophysis. 272. Right procursus, retrolateral view (Pahon Pira). 273. Left procursus, prolateral view (Moudouma). 274. Bulbal process. 275. Membranous processes on right procursus, prolateral view (Pahon Pira). 276. Membranous processes on left procursus, prolateral view (Moudouma). 277. Male gonopore. 278-279. Female ALS. 280. Epigynum, ventral view. Scale lines: 20 µm (278, 279), 30 µm (276), 50 µm (275), 60 µm (274, 277), 80 µm (272), 100 µm (273), 200 µm (280), 300 µm (271).



FIGURES 281-286. *Smeringopina ndjole* n. sp. 281-282. Left procursus, prolateral and retrolateral views. 283. Male chelicerae, frontal view. 284. Left bulbal process, prolateral view. 285. Epigynum, ventral view. 286. Cleared female genitalia, dorsal view. Scale lines: 0.3 (284), 0.5 (281-283, 285-286).



FIGURES 287-292. *Smeringopina kikongo* n. sp. 287-288. Left procursus, prolateral and retrolateral views. 289. Male chelicerae, frontal view. 290. Left bulbal process, prolateral view. 291. Epigynum, ventral view; arrow points at frontal ridge. 292. Cleared female genitalia, dorsal view. Scale lines: 0.2 (290), 0.5 (287-289, 291-292).

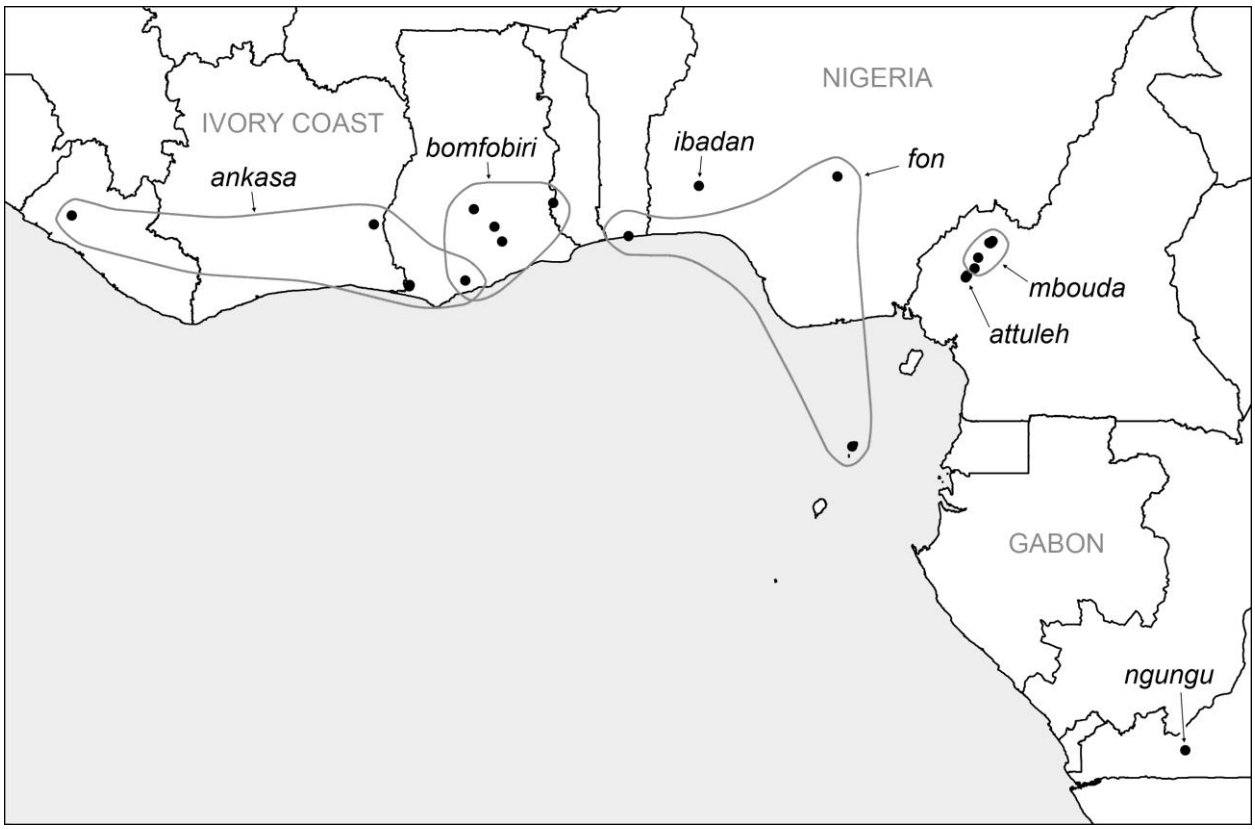
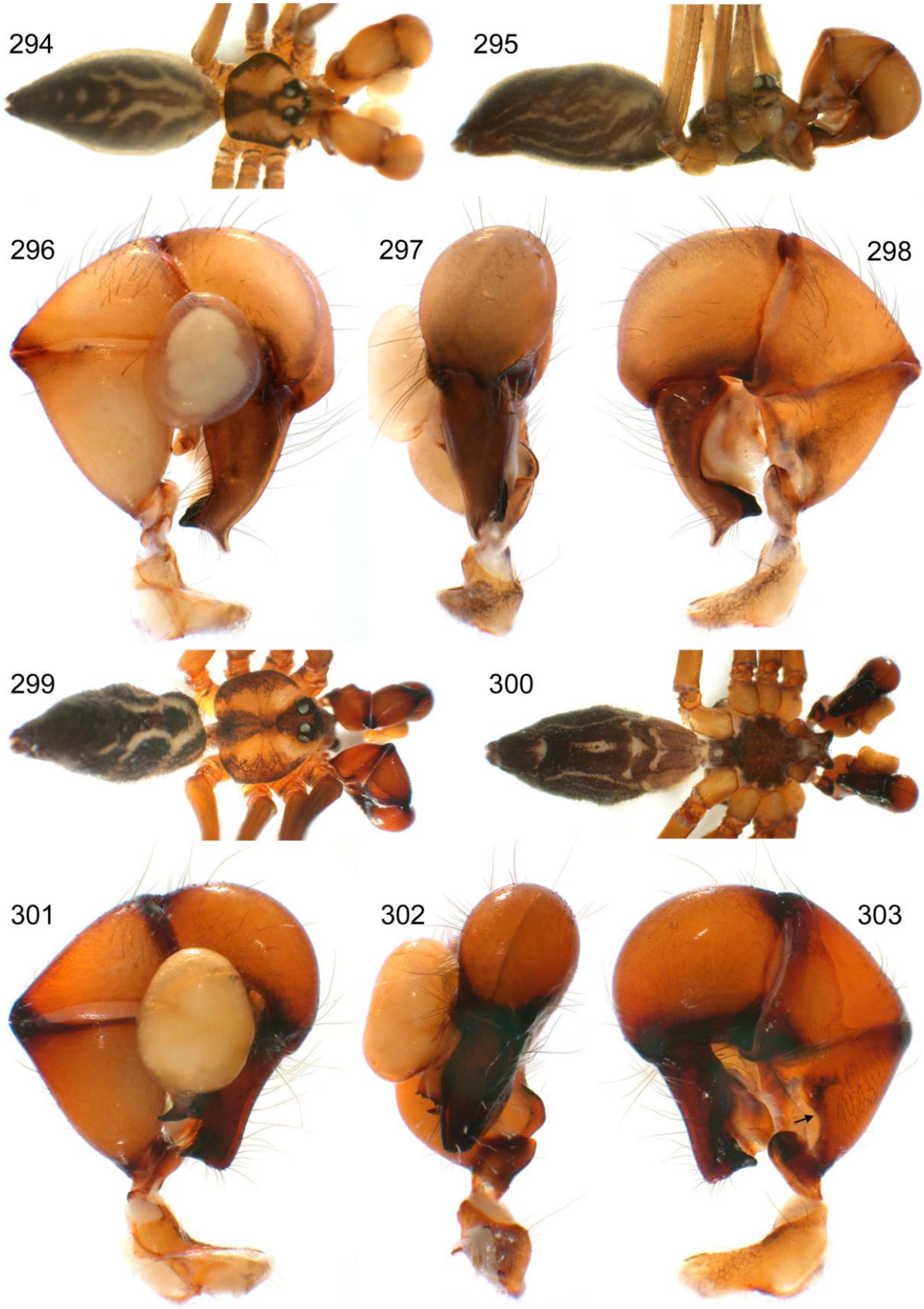
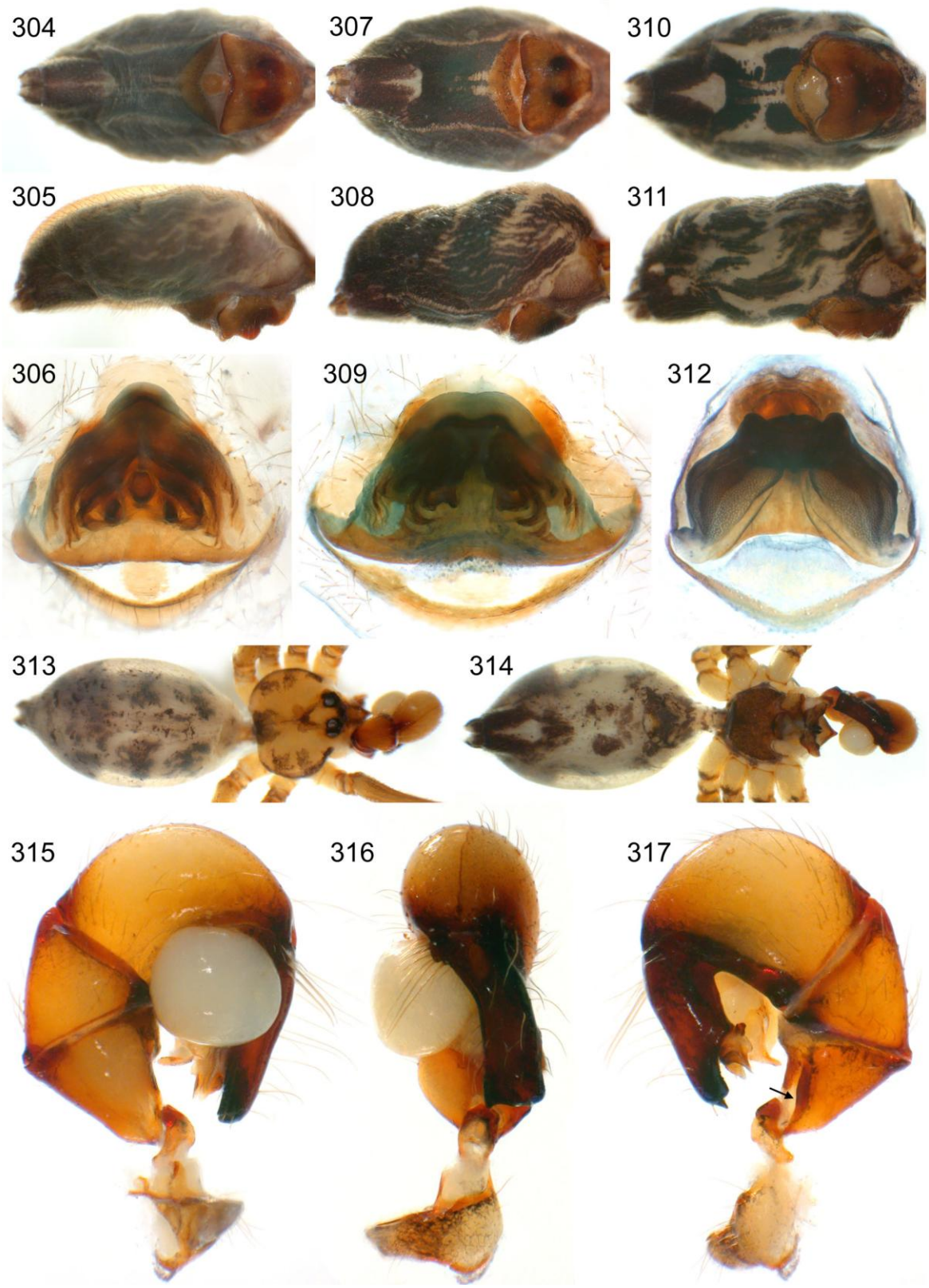


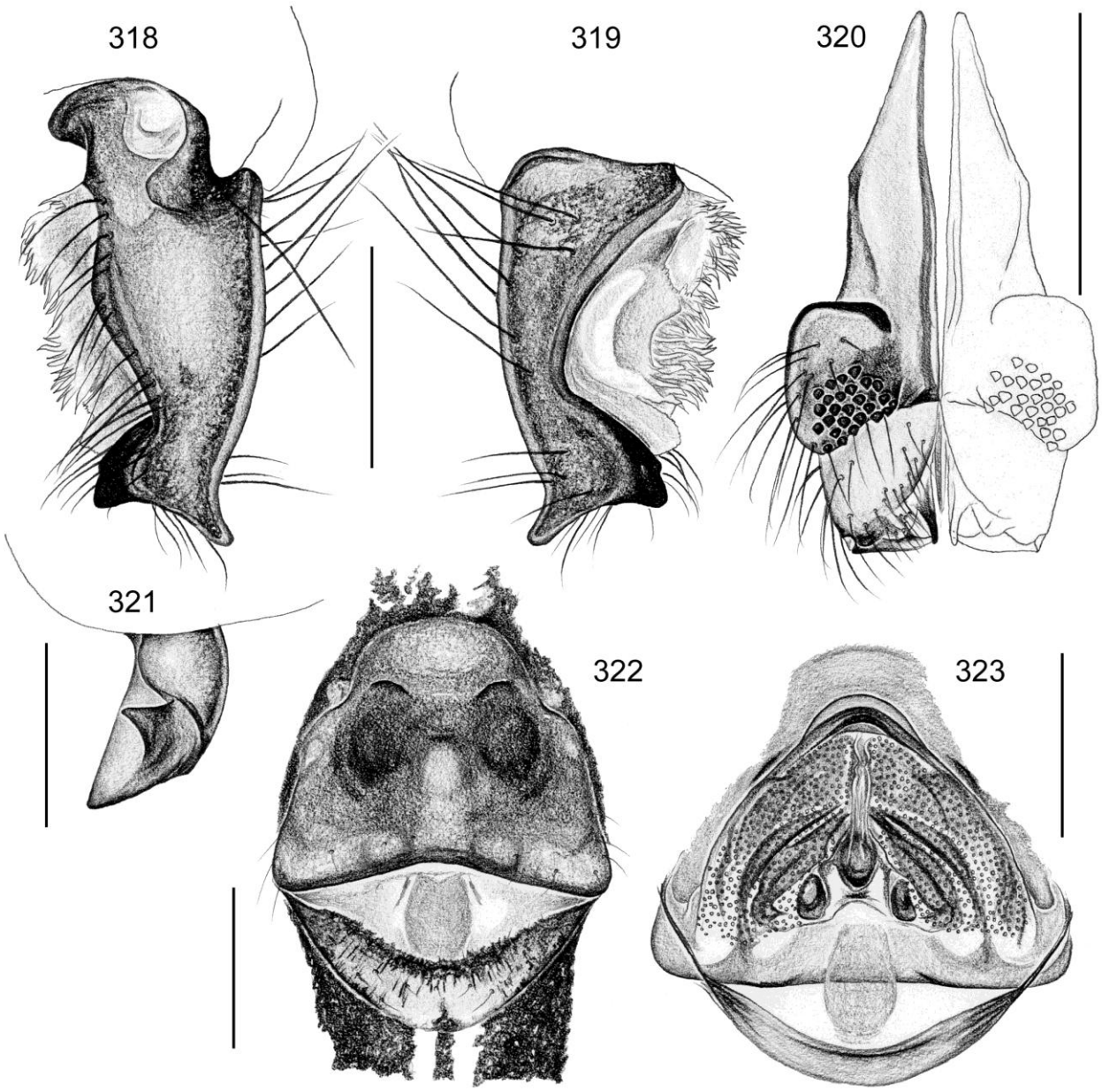
FIGURE 293. Known distributions of the *attuleh* and *ankasa* species groups, and of *S. fon* and *S. ngungu*.



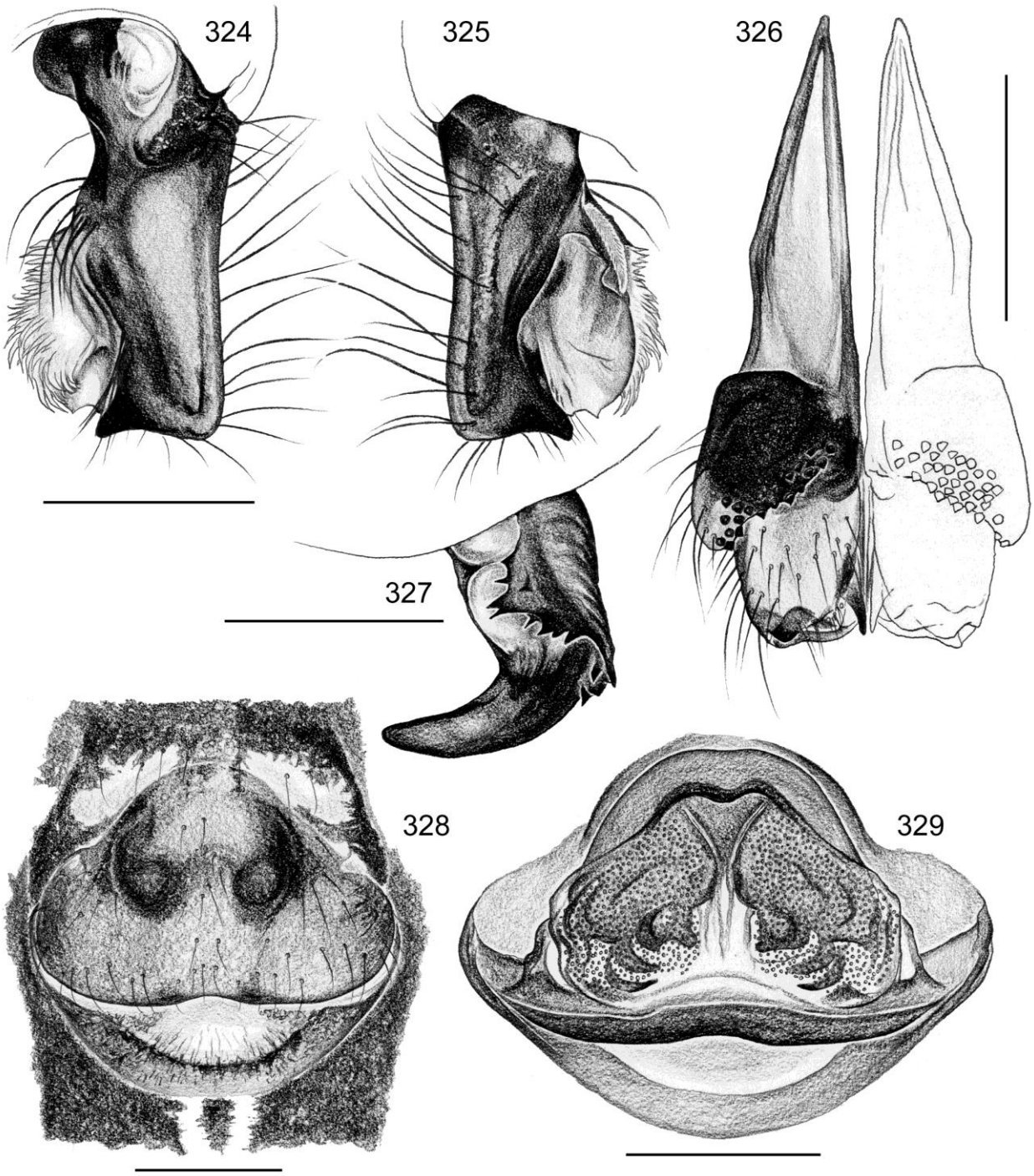
FIGURES 294-303. *Smeringopina attuleh* n. sp. (294-298) and *S. mbouda* n. sp. (299-303). 294-295, 299-300. Males, dorsal, lateral, and ventral views. 296-298, 301-303. Left male palps, prolateral, dorsal, and retrolateral views. Arrow points at retrolateral ridge bordering whitish ventral area.



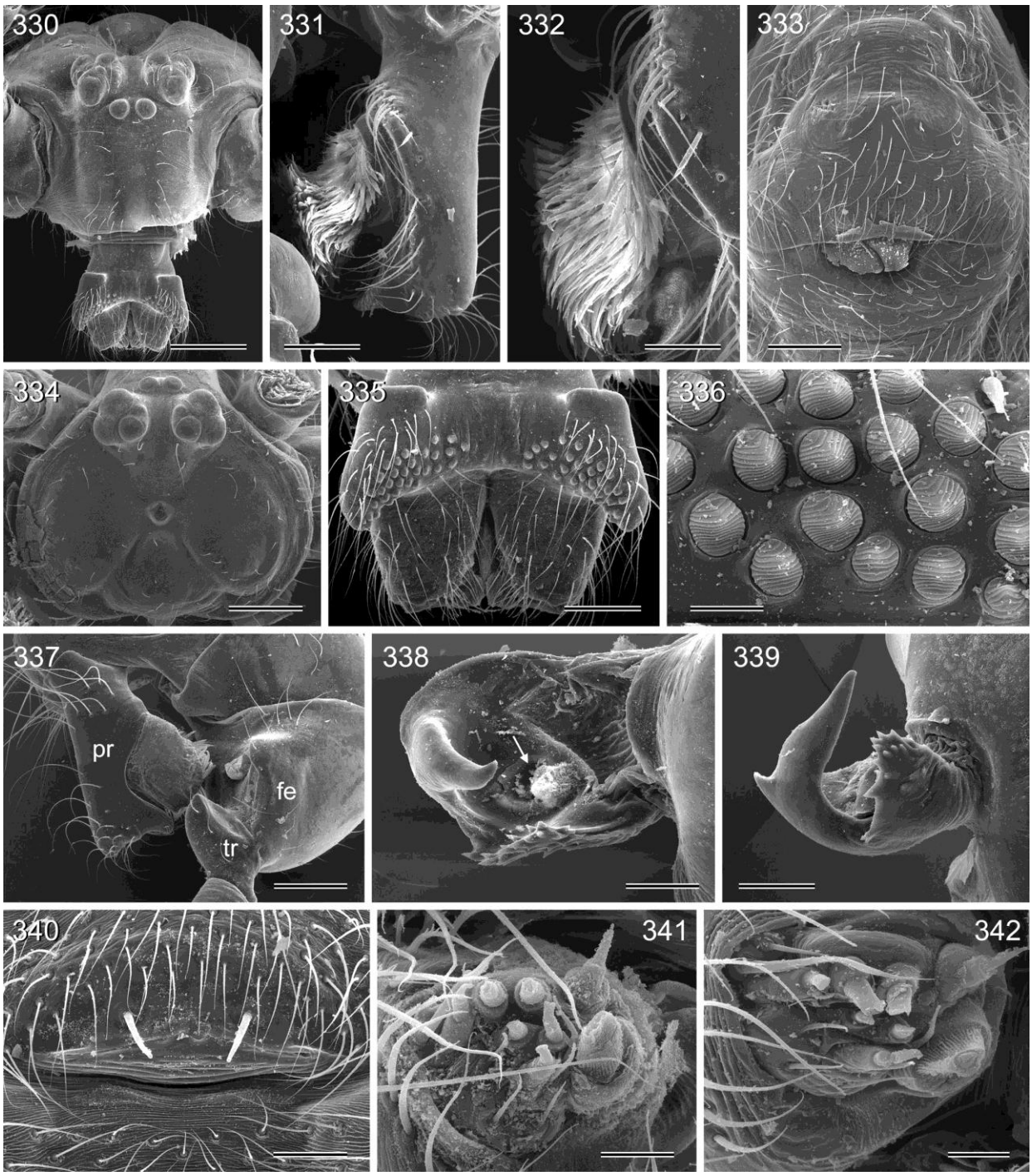
FIGURES 304-317. *Smeringopina attuleh* n. sp. (304-306), *S. mbouda* n. sp. (307-309), and *S. fon* (310-317). 304-305, 307-308, 310-311. Female abdomens, ventral and lateral views. 306, 309, 312. Cleared female genitalia, dorsal views. 313-314. Male, dorsal and ventral views. 315-317. Left male palp, prolateral, dorsal, and retrolateral views. Arrow points at retrolateral ridge bordering whitish ventral area.



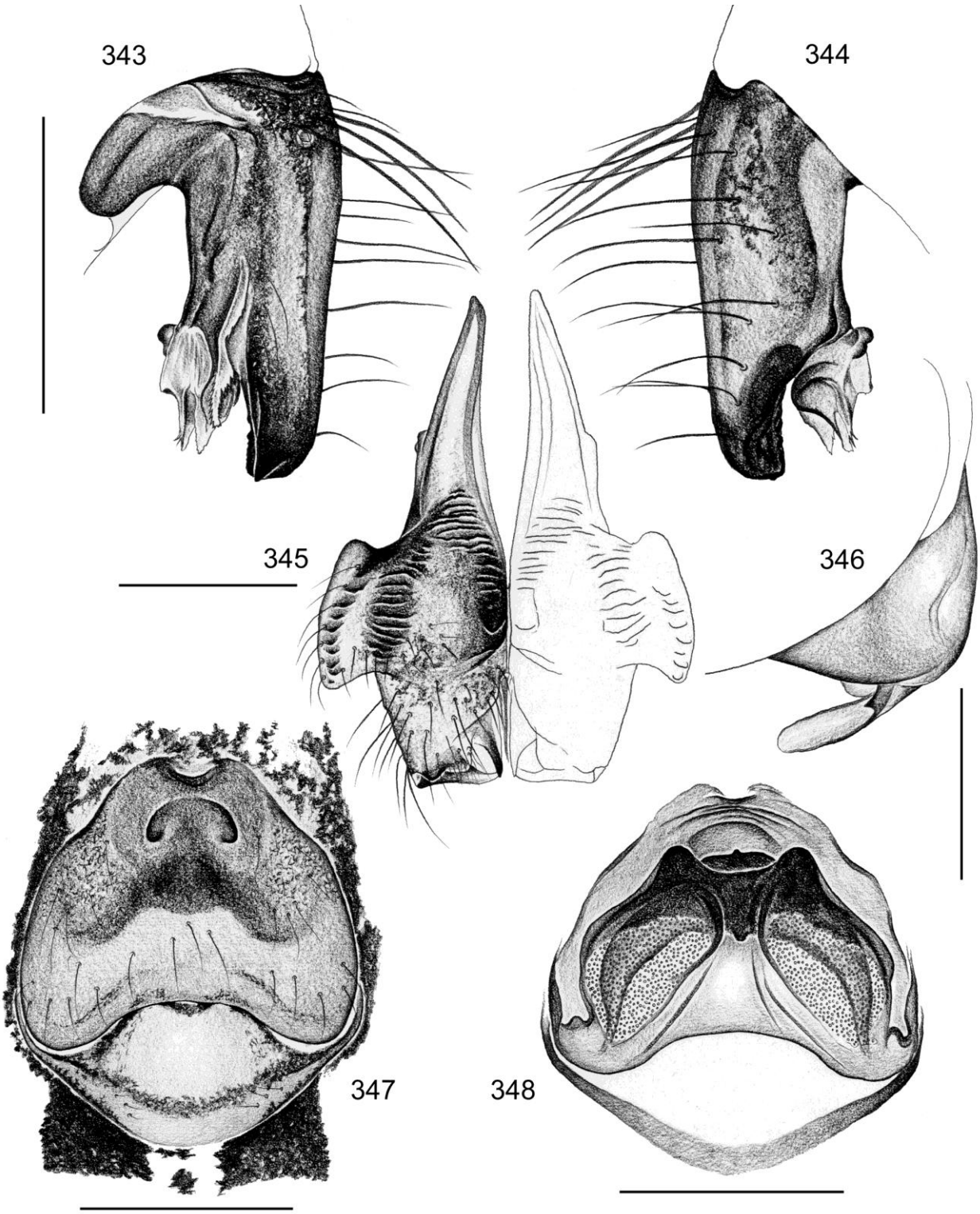
FIGURES 318-323. *Smeringopina attuleh* n. sp. 318-319. Left procursus, prolateral and retrolateral views. 320. Male chelicerae, frontal view. 321. Left embolus, prolateral view. 322. Epigynum, ventral view. 323. Cleared female genitalia, dorsal view. Scale lines: 0.2 (321), 0.5 (318-320, 322-323).



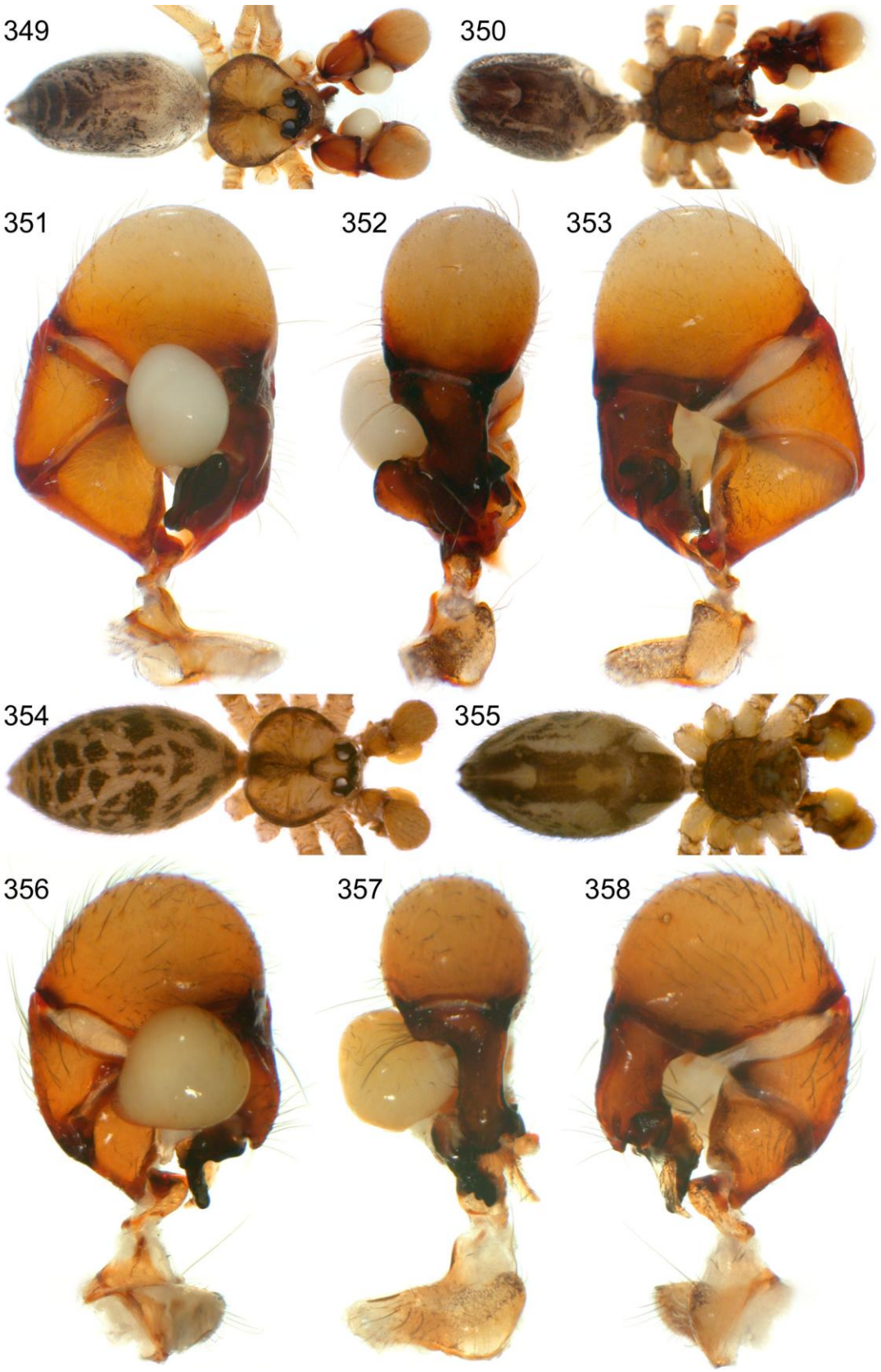
FIGURES 324-329. *Smeringopina mbouda* n. sp. 324-325. Left procursus, prolateral and retrolateral views. 326. Male chelicerae, frontal view. 327. Left embolus, prolateral view. 328. Epigynum, ventral view. 329. Cleared female genitalia, dorsal view. Scale lines: 0.2 (327), 0.5 (324-326, 328-329).



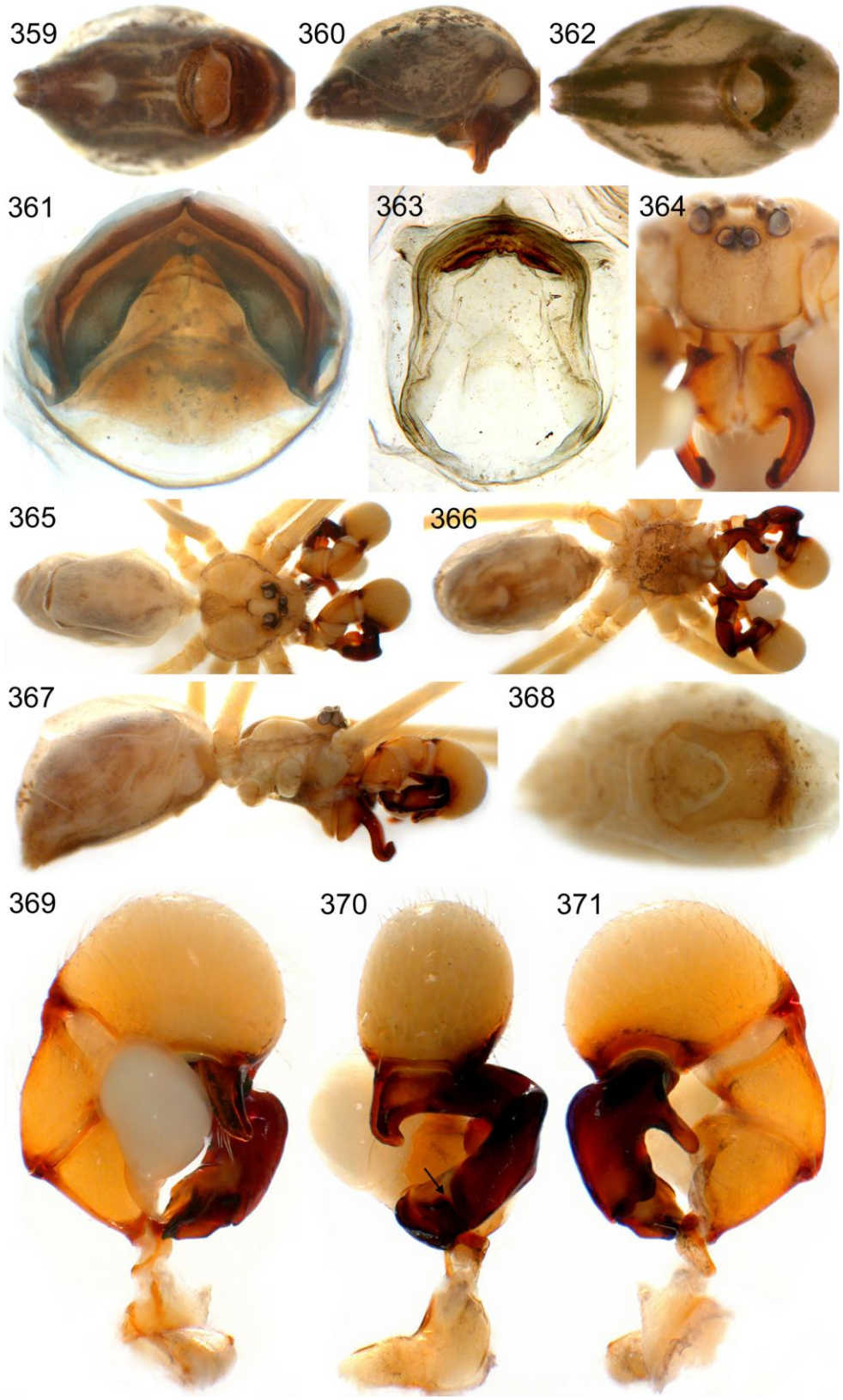
FIGURES 330-342. *Smeringopina mbouda* n. sp. 330. Male prosoma, frontal view. 331-332. Left procursus, prolateral views. 333. Epigynum, ventral view. 334. Female prosoma, dorsal view. 335. Male chelicerae. 336. Modified hairs on male chelicerae. 337. Left palp, retrolateral view. 338-339. Left embolus; arrow points at sperm duct opening. 340. Male gonopore. 341. Male ALS. 342. Female ALS. Abbreviations: fe: femur; pr: procursus; tr: trochanter. Scale lines: 20 µm (342), 30 µm (336, 341), 80 µm (338, 340), 100 µm (332, 339), 200 µm (331, 335), 300 µm (333, 337), 500 µm (330, 334).



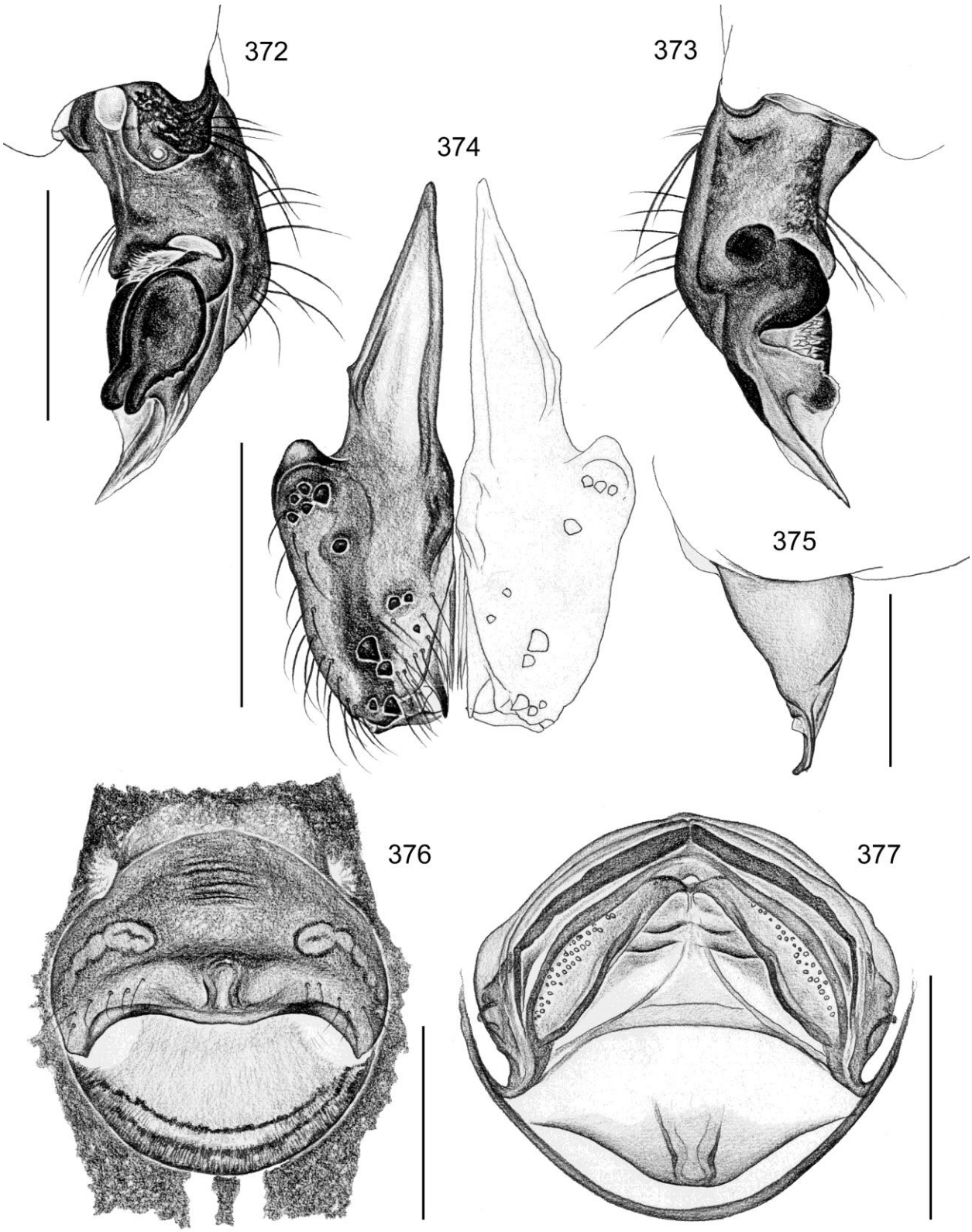
FIGURES 343-348. *Smeringopina fon* n. sp. 343-344. Left procursus, prolateral and retrolateral views. 345. Male chelicerae, frontal view. 346. Left bulbal process, prolateral view. 347. Epigynum, ventral view. 348. Cleared female genitalia, dorsal view. Scale lines: 0.2 (346), 0.3 (345), 0.5 (343-344, 347-348).



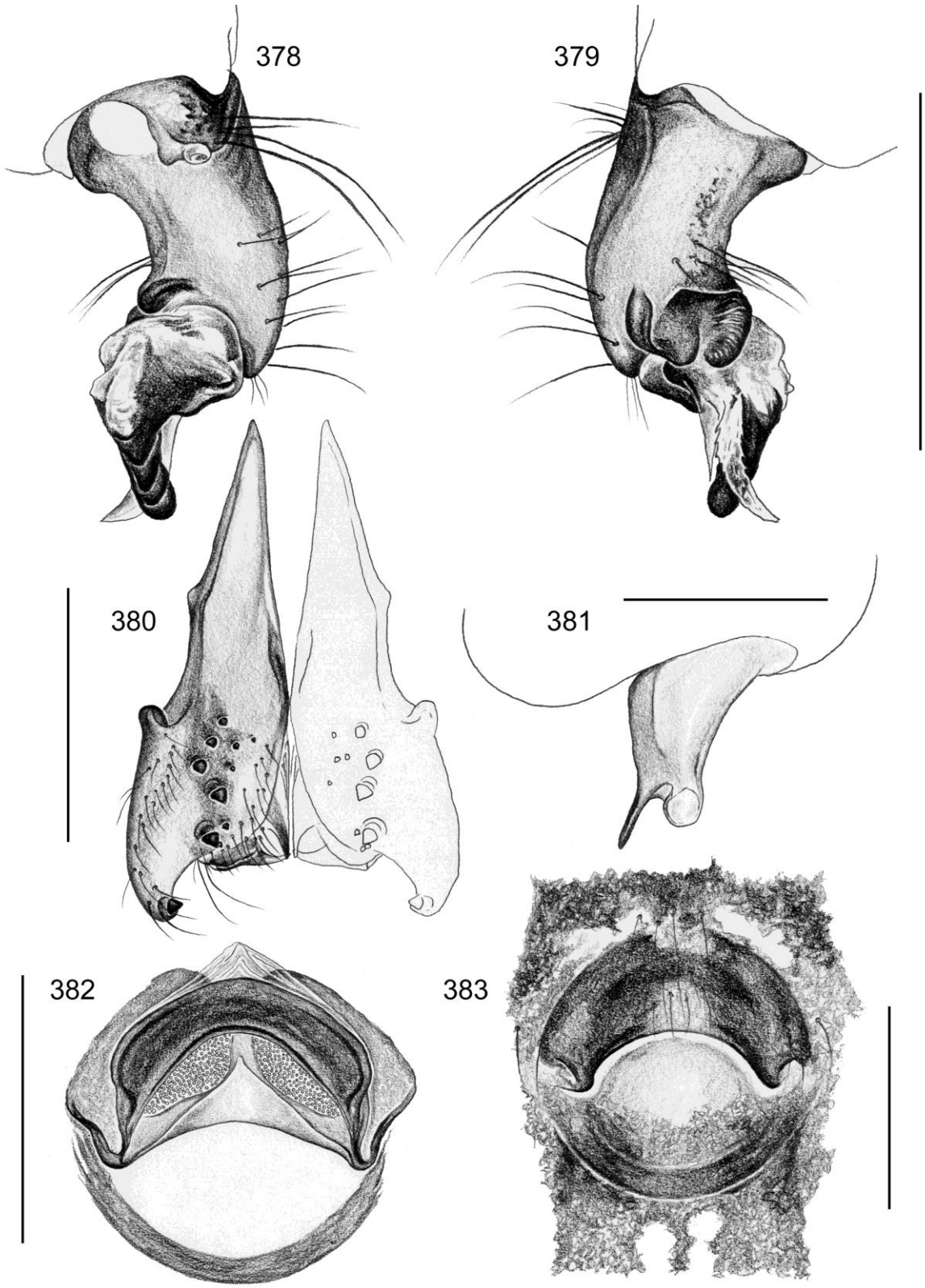
FIGURES 349-358. *Smeringopina ankasa* n. sp. (349-353) and *S. bomfobiri* n. sp. (354-358). 349-350, 354-355. Males, dorsal and ventral views. 351-353, 356-358. Left male palps, prolateral, dorsal, and retrolateral views.



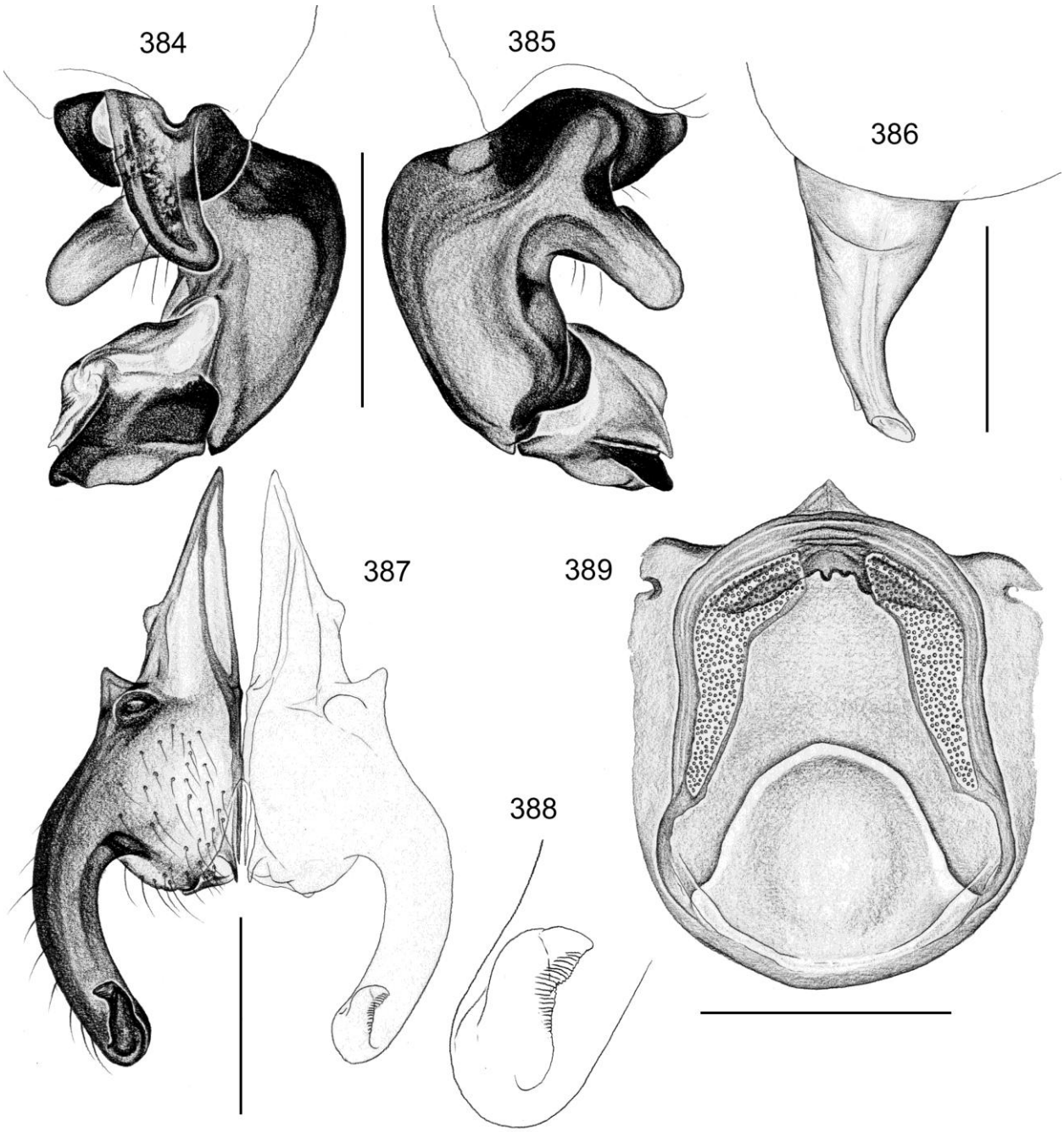
FIGURES 359-371. *Smeringopina ankasa* n. sp. (359-361), *S. bomfobiri* n. sp. (362), and *S. ibadan* n. sp. (363-371). 359-360, 362, 368. Female abdomens, ventral and lateral views. 361, 363. Cleared female genitalia, dorsal views. 364. Male prosoma, frontal view. 365-367. Males, dorsal, ventral, and lateral views. 369-371. Left male palp, prolateral, dorsal, and retrolateral views; arrow points at procursus hinge.



FIGURES 372-377. *Smeringopina ankasa* n. sp. 372-373. Left procursus, prolateral and retrolateral views. 374. Male chelicerae, frontal view. 375. Left embolus, prolateral view. 376. Epigynum, ventral view. 377. Cleared female genitalia, dorsal view. Scale lines: 0.2 (375), 0.5 (372-374, 376-377).



FIGURES 378-383. *Smeringopina bomfobiri* n. sp. 378-379. Left procursus, prolateral and retrolateral views. 380. Male chelicerae, frontal view. 381. Left embolus, prolateral view. 382. Cleared female genitalia, dorsal view. 383. Epigynum, ventral view. Scale lines: 0.2 (381), 0.5 (378-380, 382-383).



FIGURES 384-389. *Smeringopina ibadan* n. sp. 384-385. Left procursus, prolateral and retrolateral views. 386. Left embolus, prolateral view. 387. Male chelicerae, frontal view. 388. Tip of left cheliceral apophysis, frontal view. 389. Cleared female genitalia, dorsal view. Scale lines: 0.2 (386), 0.5 (384-385, 387, 389).

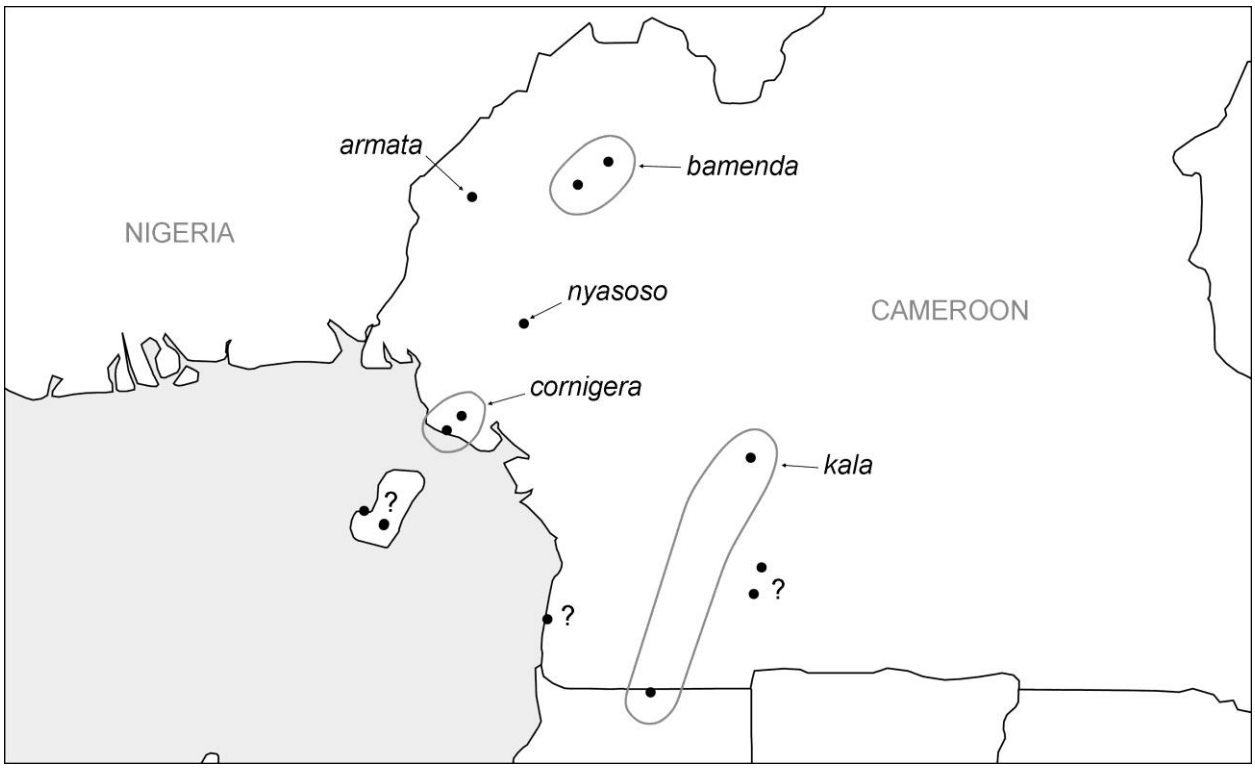
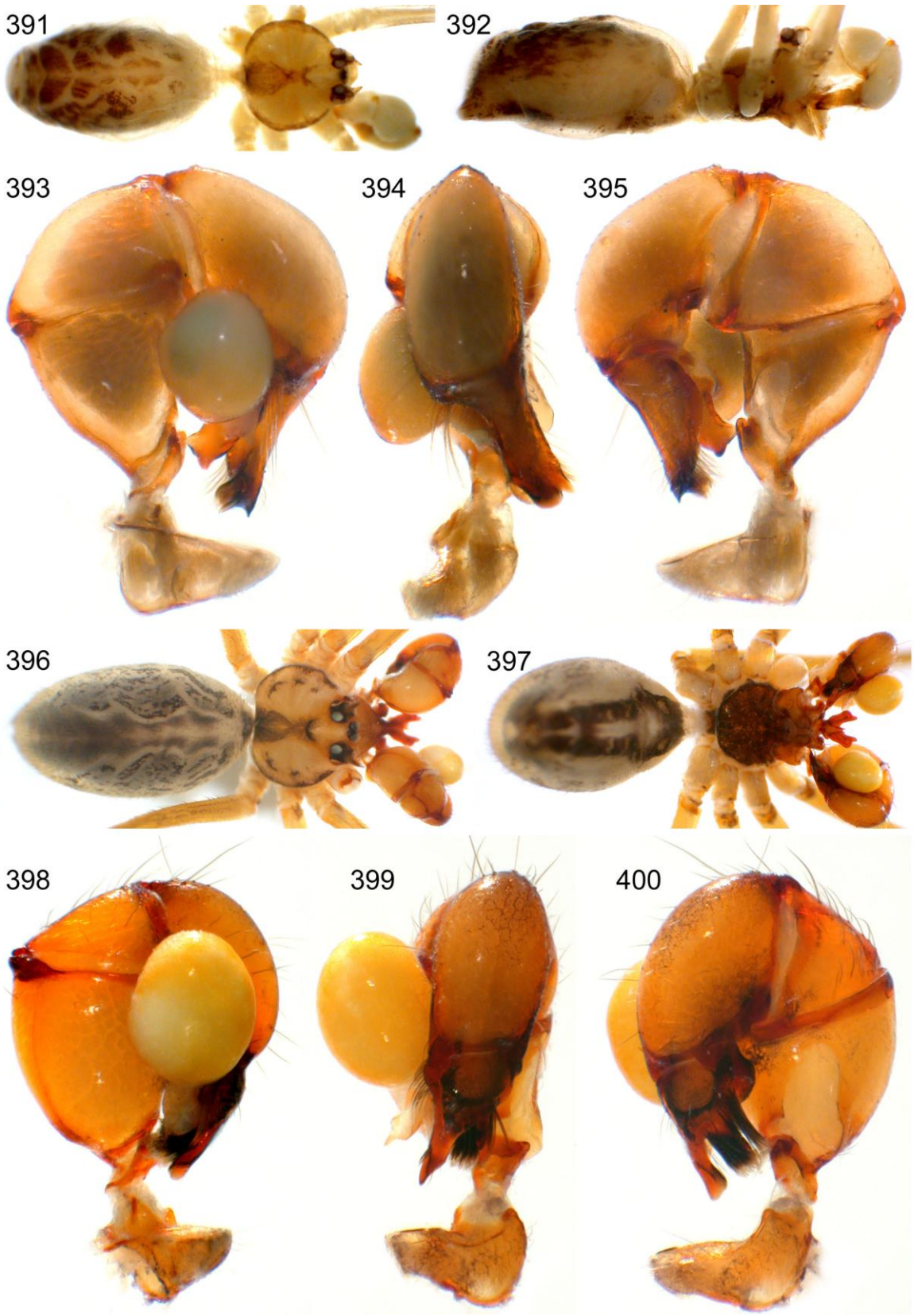
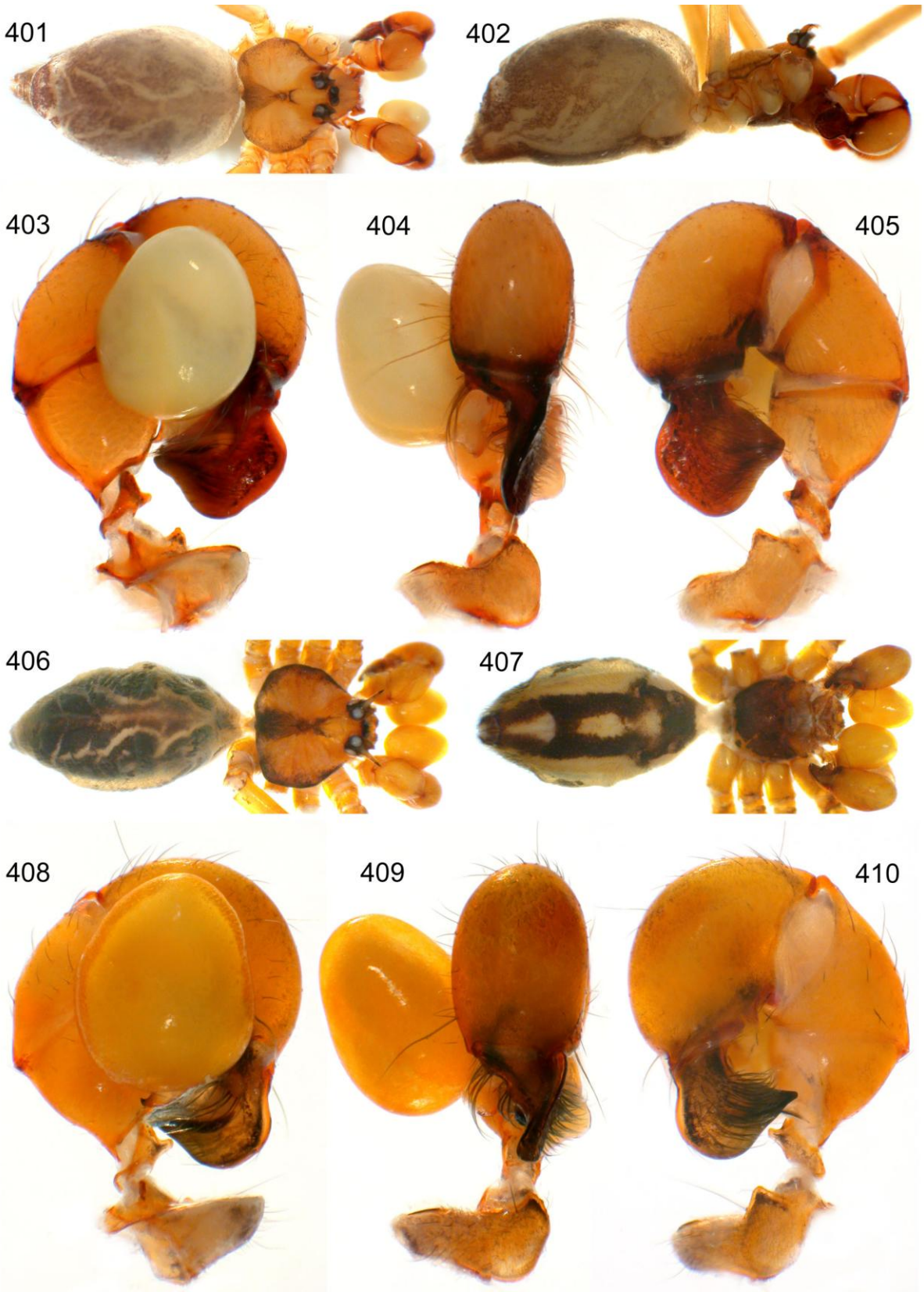


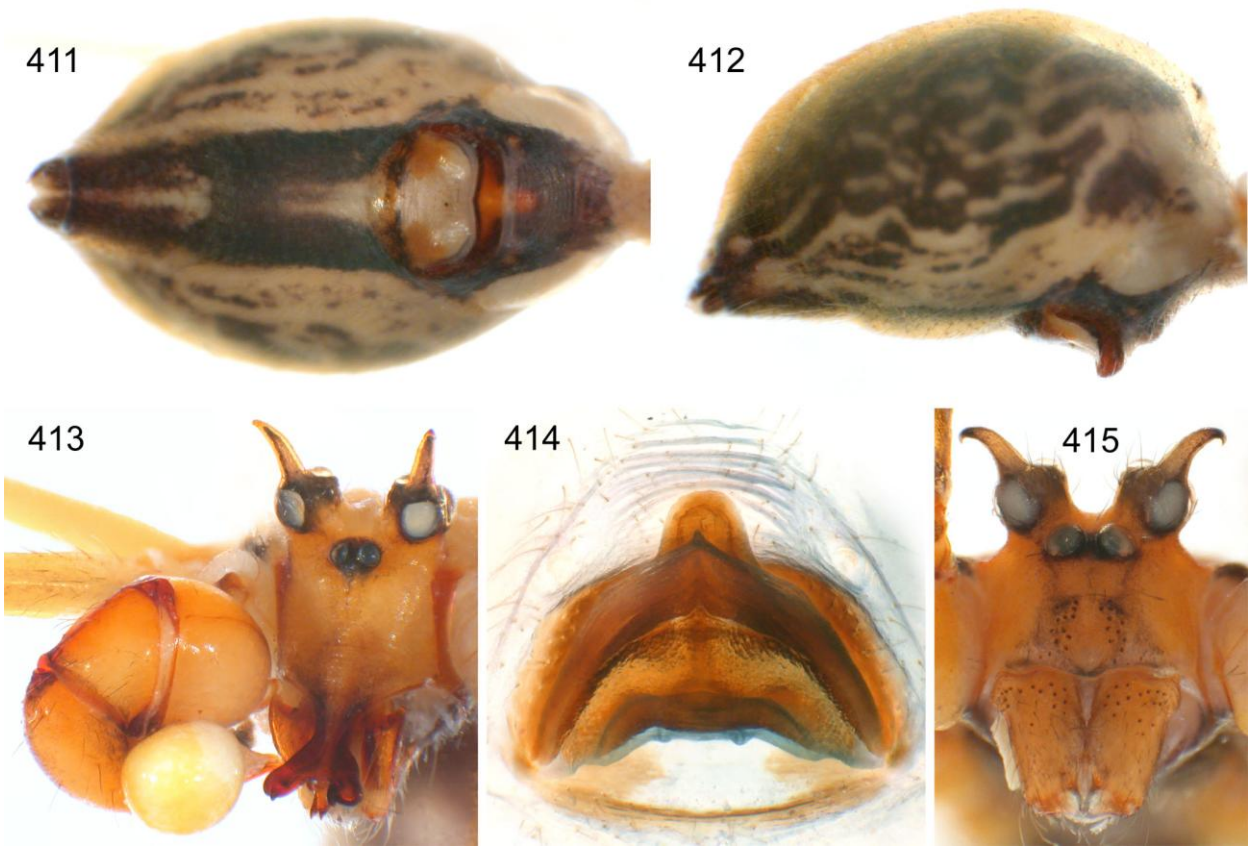
FIGURE 390. Known distribution of the *cornigera* species group. Question marks denote unidentified females deposited in CAS (Bioko, probably new species) and ZFMK (southern Cameroon, possibly *S. kala*).



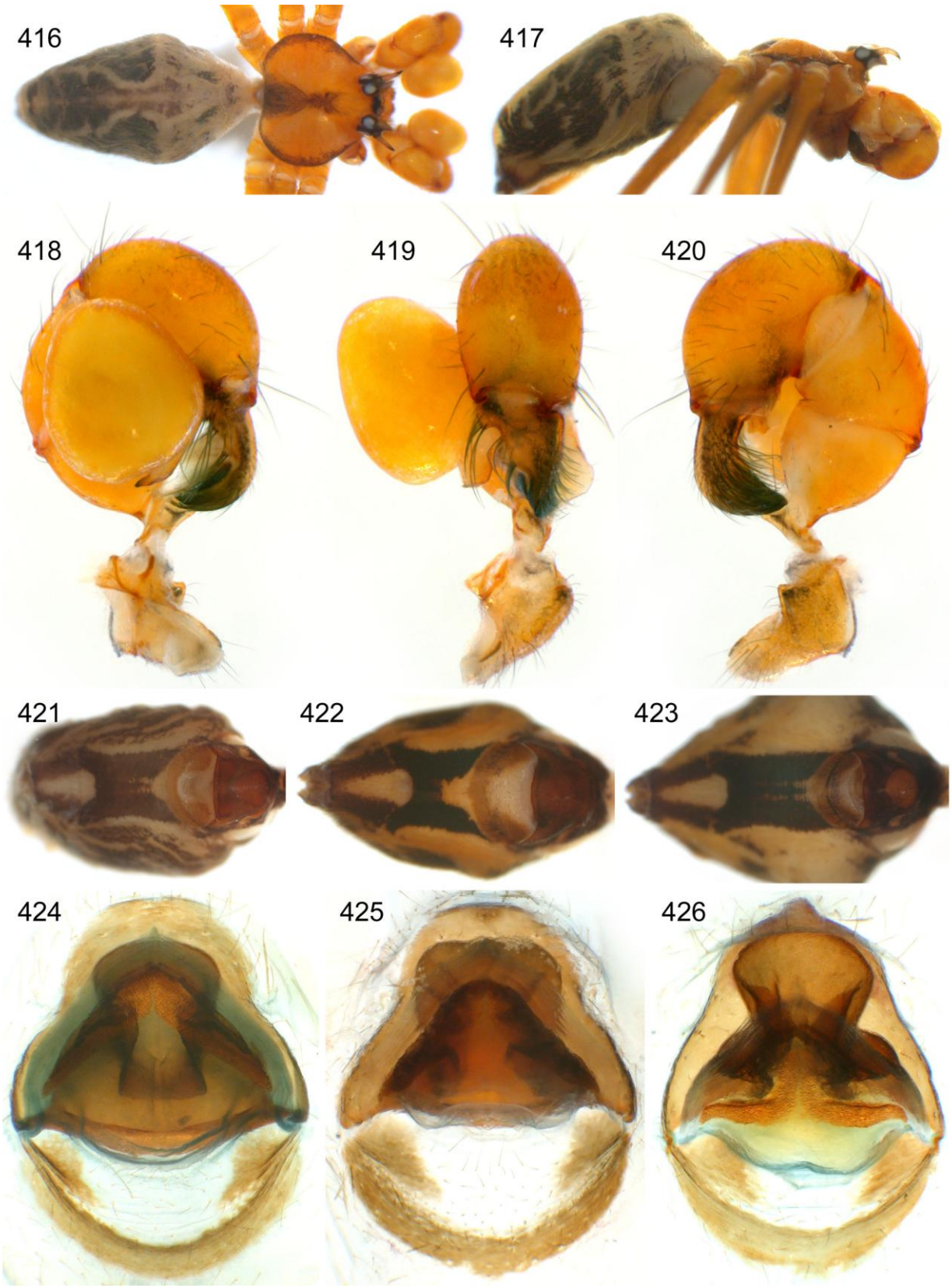
FIGURES 391-400. *Smeringopina armata* (Thorell) (391-395) and *S. bamenda* n. sp. (396-400). 391-392, 396-397. Males, dorsal, lateral, and ventral views. 393-395, 398-400. Left male palps, prolateral, dorsal, and retrolateral views.



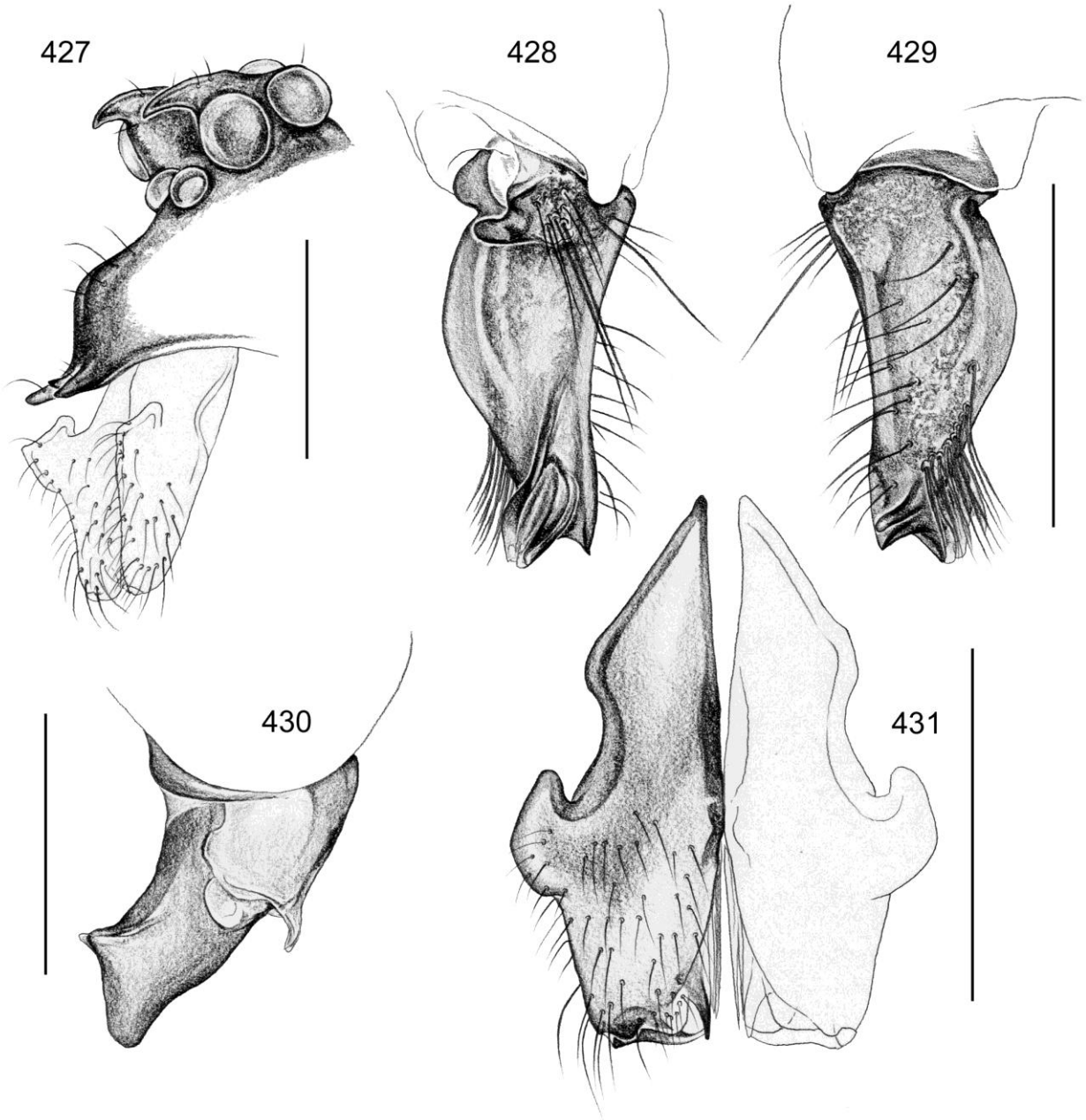
FIGURES 401-410. *Smeringopina cornigera* (Simon) (401-405) and *S. nyasoso* n. sp. (406-410). 401-402, 406-407. Males, dorsal, lateral, and ventral views. 403-405, 408-410. Left male palps, prolateral, dorsal, and retrolateral views.



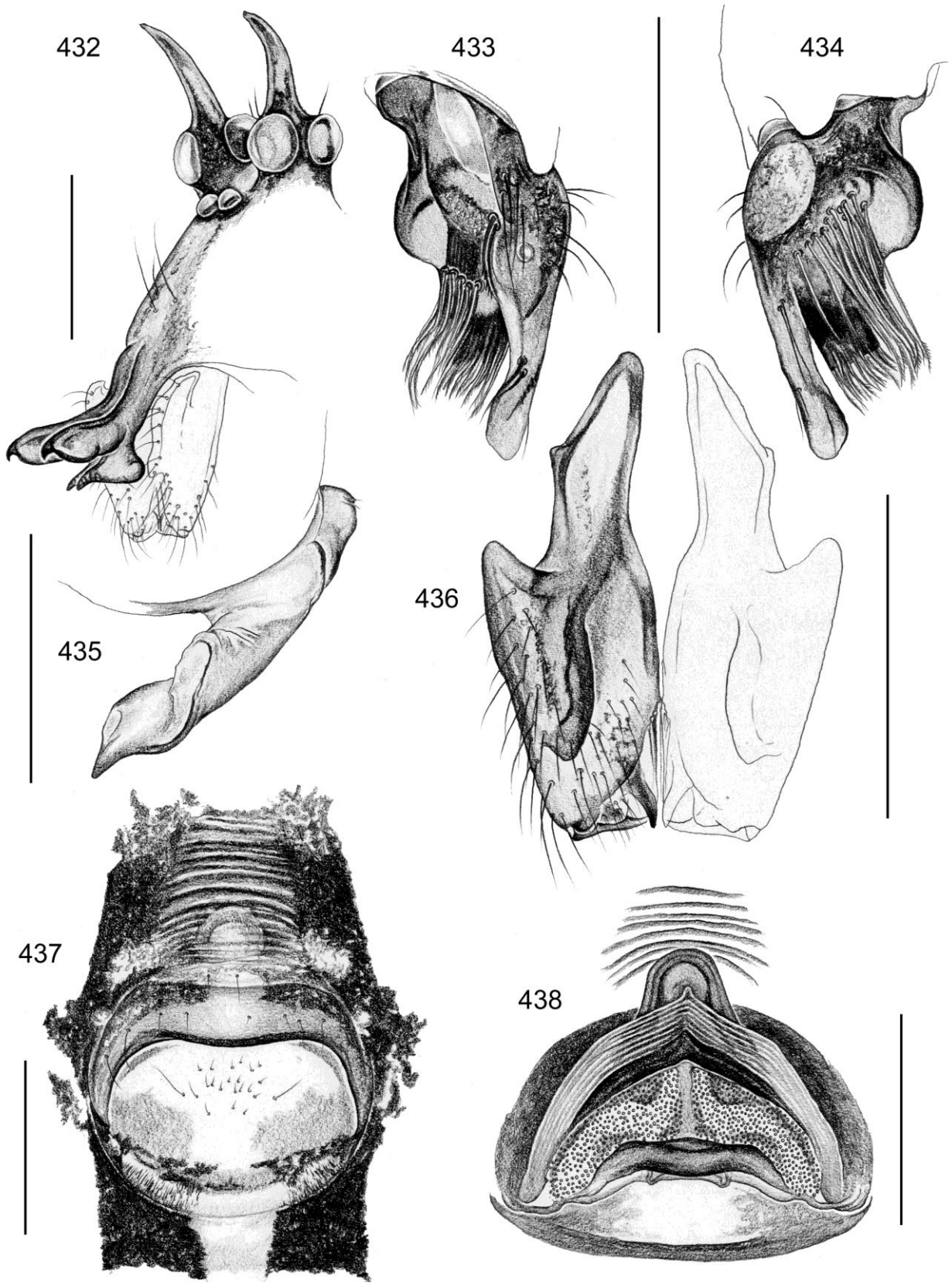
FIGURES 411-415. *Smeringopina bamenda* n. sp. (411-414) and *S. nyasoso* n. sp. (415). 411-412. Female abdomen, ventral and lateral views. 413, 415. Male prosomata (and palp), oblique and frontal views. 414. Cleared female genitalia, dorsal view.



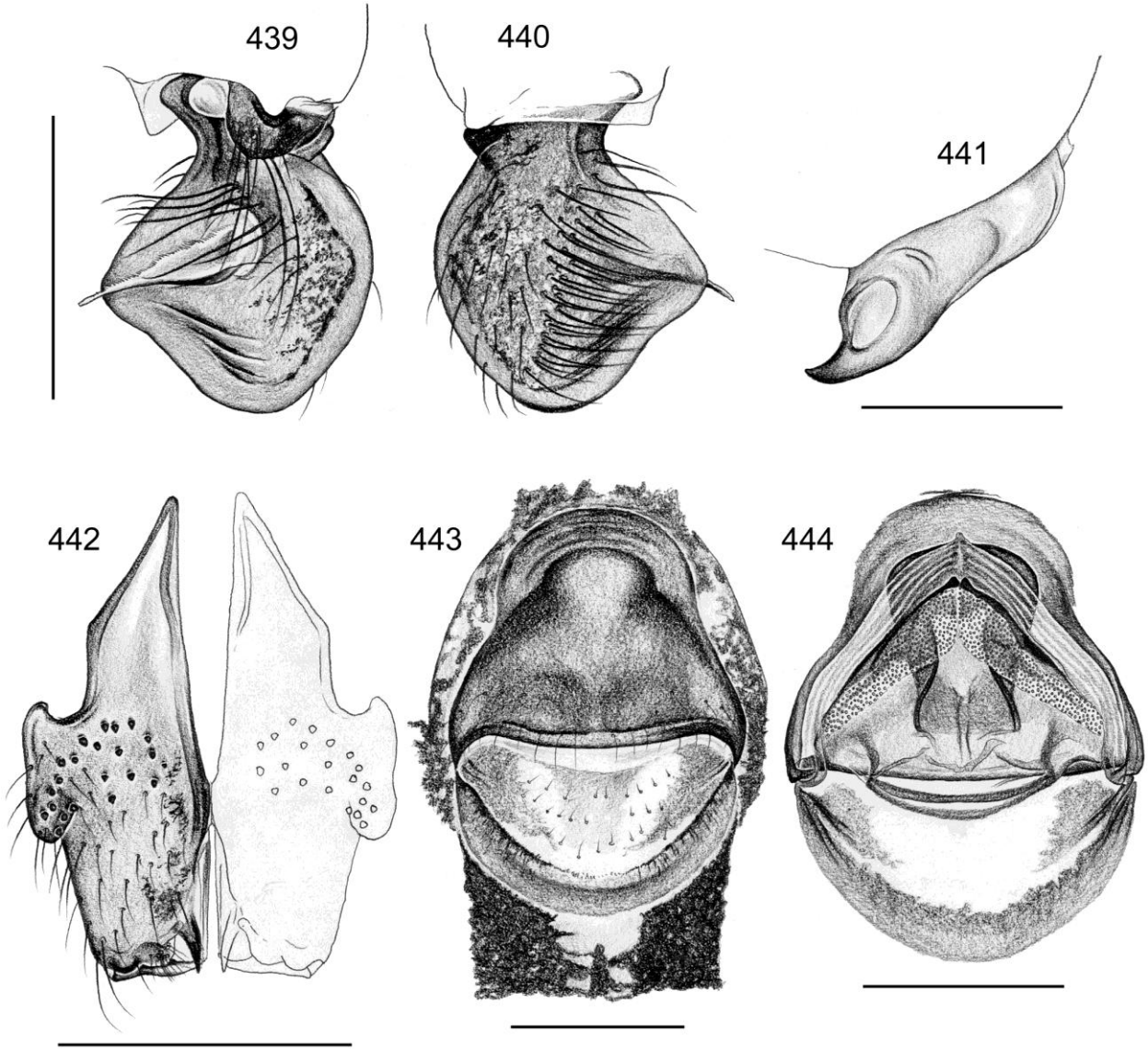
FIGURES 416-426. *Smeringopina kala* n. sp. (416-420, 423, 426), *S. cornigera* (Simon) (421, 424), and *S. nyasoso* n. sp. (422, 425). 416-417. Male, dorsal and lateral views. 418-420. Left male palp, prolateral, dorsal, and retrolateral views. 421-423. Female abdomens, ventral views. 424-426. Cleared female genitalia, dorsal views.



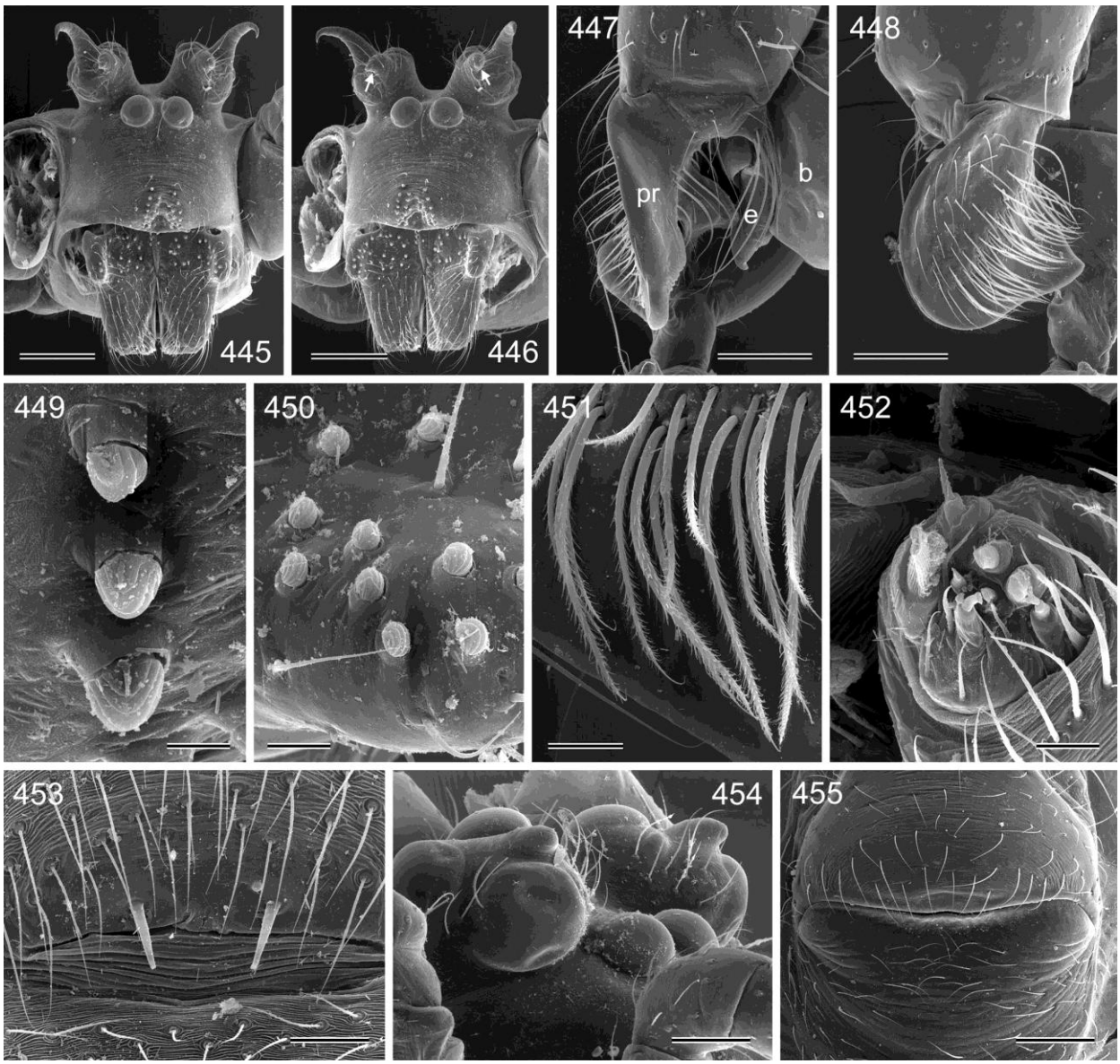
FIGURES 427-431. *Smeringopina armata* (Thorell). 427. Male clypeus and ocular area, oblique frontal view. 428-429. Left procursus, prolateral and retrolateral views. 430. Left embolus, prolateral view. 431. Male chelicerae, frontal view. Scale lines: 0.3 (430), 0.5 (427-429, 431).



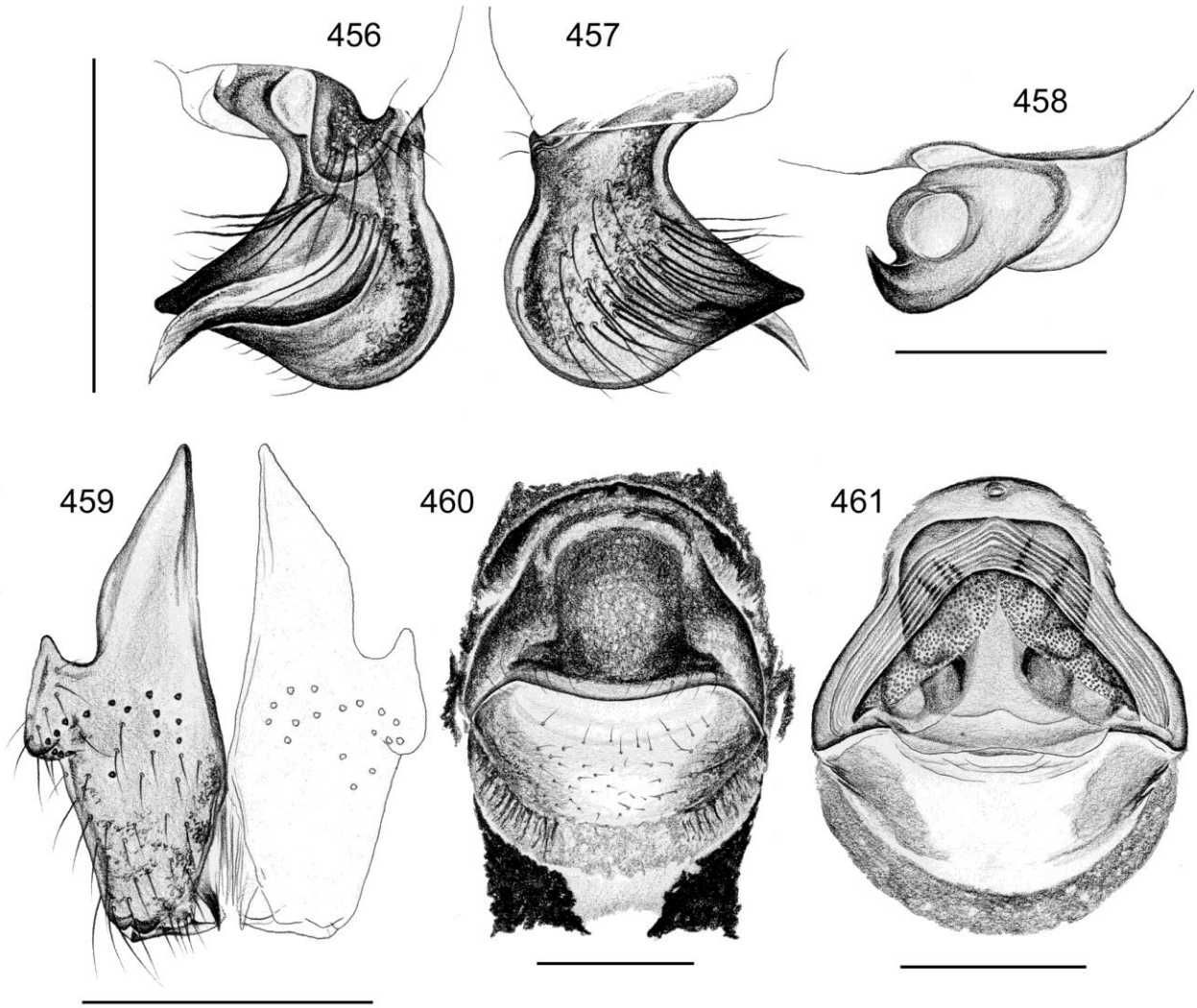
FIGURES 432-438. *Smeringopina bamenda* n. sp. 432. Male clypeus and ocular area, oblique frontal view. 433-434. Left procursus, prolateral and retrolateral views. 435. Left embolus, prolateral view. 436. Male chelicerae, frontal view. 437. Epigynum, ventral view. 438. Cleared female genitalia, dorsal view. Scale lines: 0.3 (435), 0.5 (432-434, 436-438).



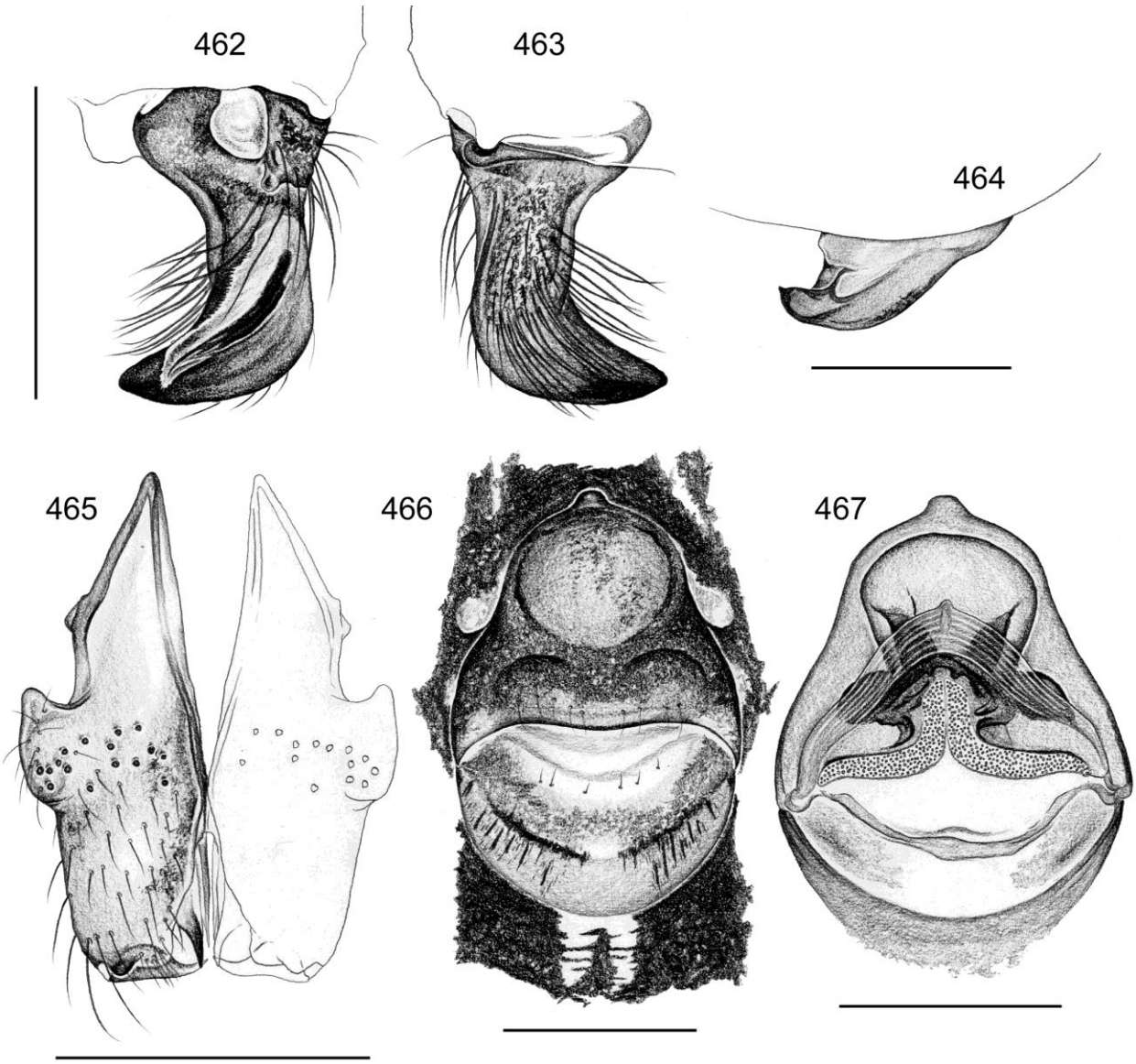
FIGURES 439-444. *Smeringopina cornigera* (Simon). 439-440. Left procursus, prolateral and retrolateral views. 441. Left embolus, prolateral view. 442. Male chelicerae, frontal view. 443. Epigynum, ventral view. 444. Cleared female genitalia, dorsal view. Scale lines: 0.2 (441), 0.5 (439-440, 442-444).



FIGURES 445-455. *Smeringopina cornigera* (Simon). 445-446. Male prosoma, frontal and oblique views; arrows point at pair of small horns. 447. Right male palp, dorsal view. 448. Left procursus, retrolatero-dorsal view. 449. Modified hairs on male clypeus. 450. Modified hairs on male chelicerae. 451. Hairs on left procursus. 452. Female ALS. 453. Male gonopore. 454. Female ocular area. 455. Epigynum, dorsal view. Abbreviations: b: bulb; e: embolus; pr: procursus. Scale lines: 10 µm (449), 20 µm (450, 452), 30 µm (451), 50 µm (453), 100 µm (454), 200 µm (447-448, 455), 300 µm (445-446).



FIGURES 456-461. *Smeringopina nyasoso* n. sp. 456-457. Left procursus, prolateral and retrolateral views. 458. Left embolus, prolateral view. 459. Male chelicerae, frontal view. 460. Epigynum, ventral view. 461. Cleared female genitalia, dorsal view. Scale lines: 0.2 (458), 0.5 (456-457, 459-461).



FIGURES 462-467. *Smeringopina kala* n. sp. 462-463. Left procursus, prolateral and retrolateral views. 464. Left embolus, prolateral view. 465. Male chelicerae, frontal view. 466. Epigynum, ventral view. 467. Cleared female genitalia, dorsal view. Scale lines: 0.2 (464), 0.5 (462-463, 465-467).

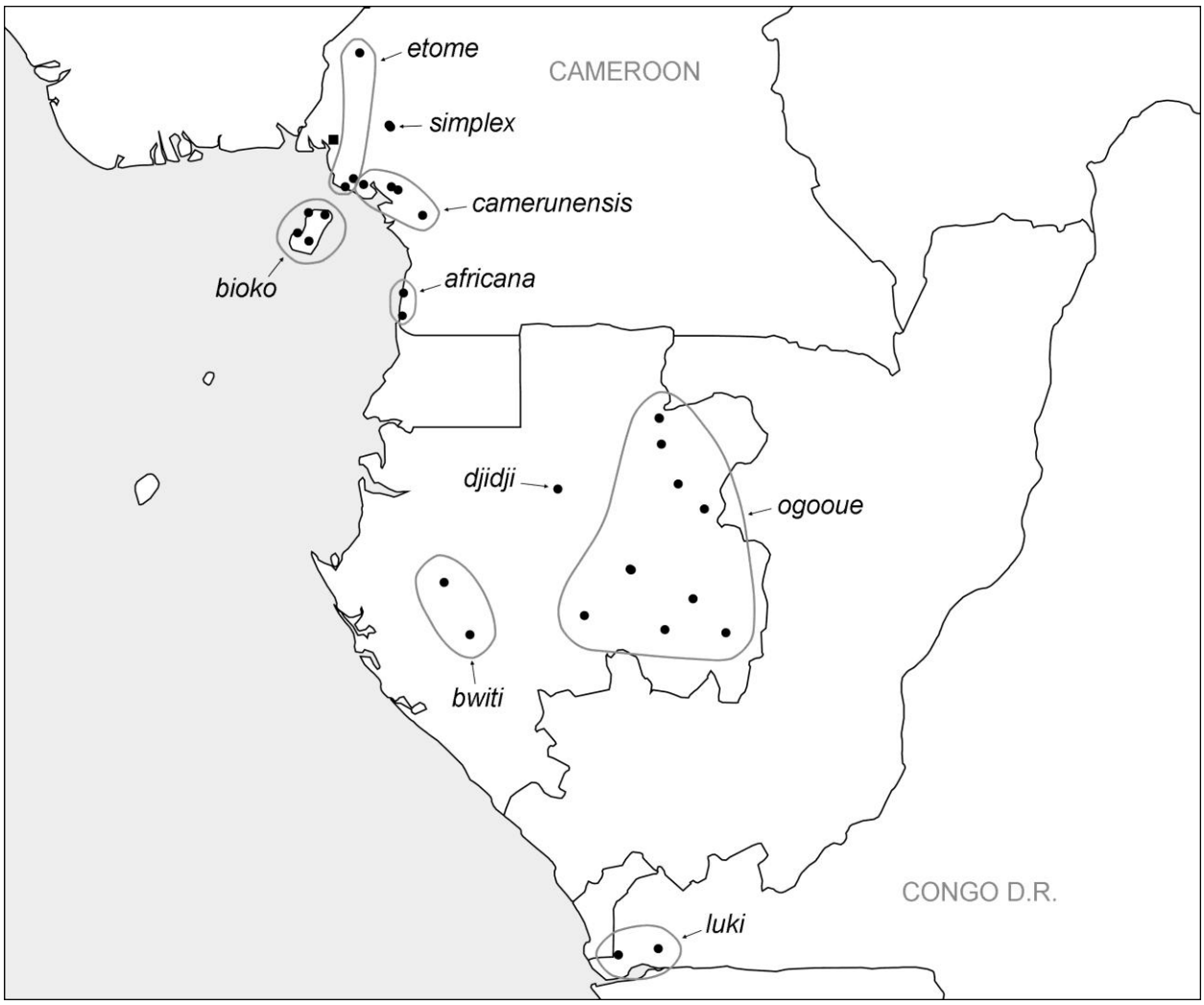
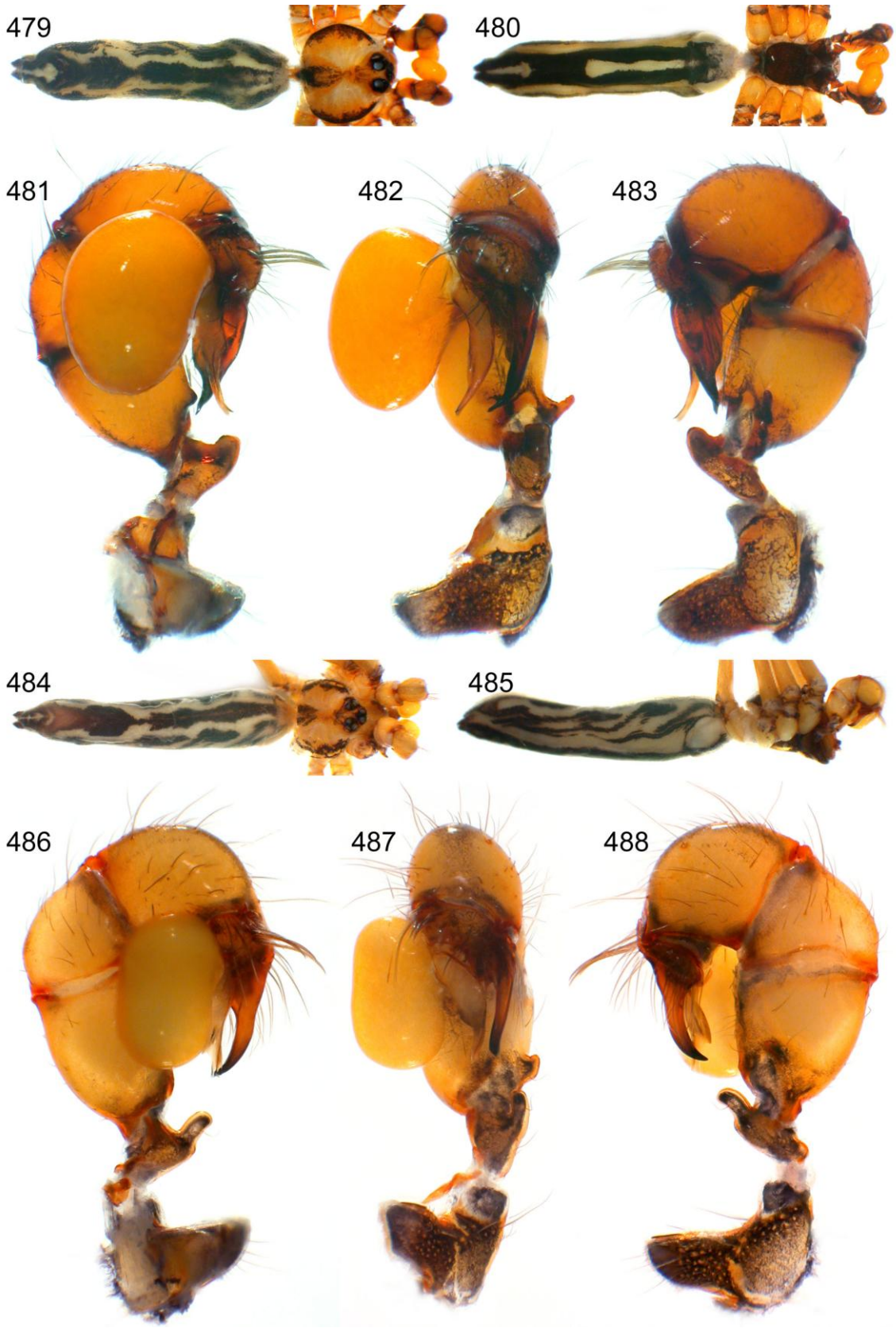
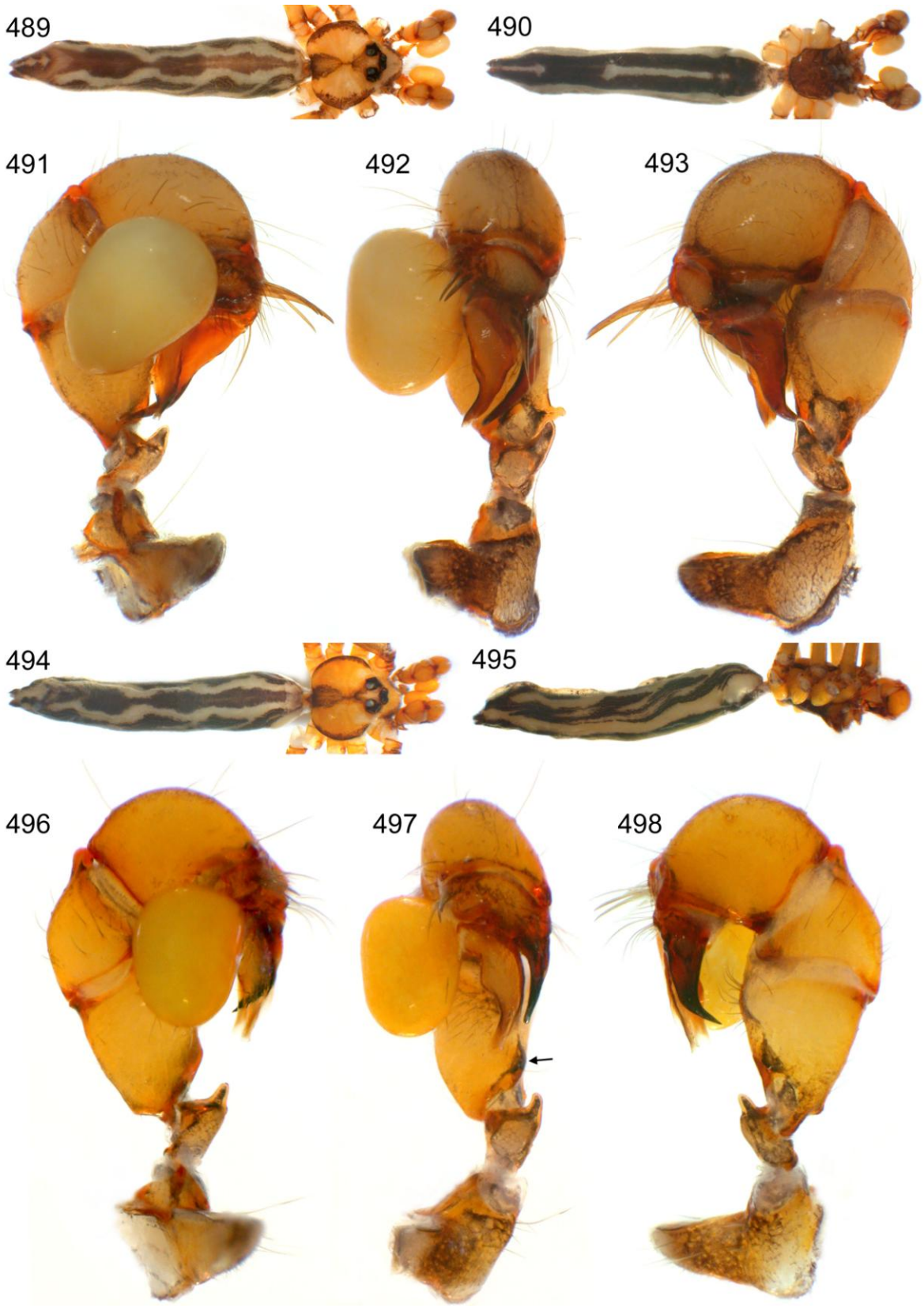


FIGURE 468. Known distribution of the *simplex* species group. The square in western Cameroon denotes the probably misidentified juvenile paralectotypes of *S. africana* (Thorell) from Kitta in NHRS.

FIGURES 469-478. *Smeringopina camerunensis* Kraus (469-473) and *S. djidji* n. sp. (474-478). 469-470, 474-475. Males, dorsal and ventral views. 471-473, 476-478. Left male palps, prolateral, dorsal, and retrolateral views. Arrow points at ventral sclerotized ridge.



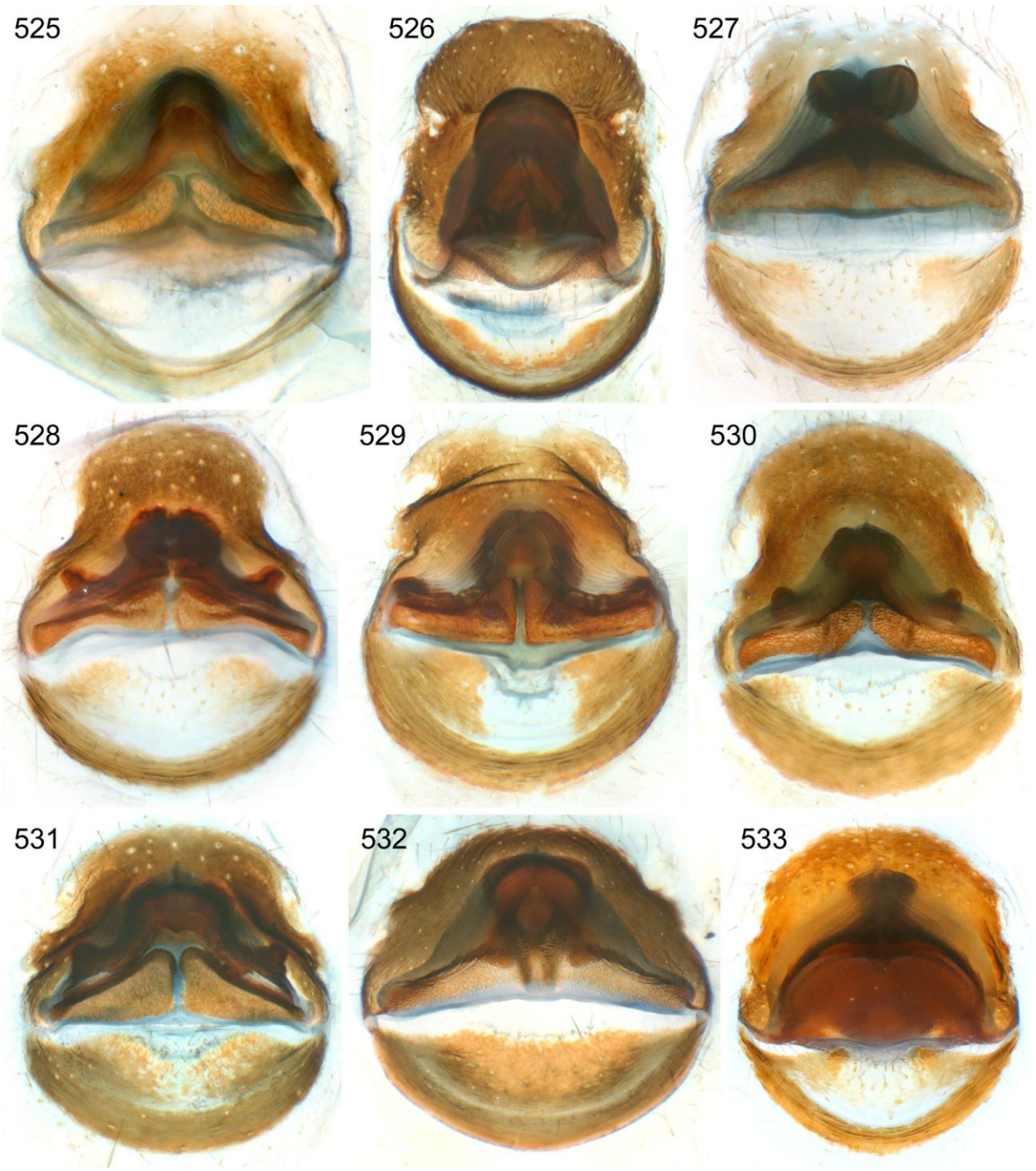
FIGURES 479-488. *Smeringopina ogooue* n. sp. (479-483) and *S. bioko* n. sp. (484-488). 479-480, 484-485. Males, dorsal, ventral, and lateral views. 481-483, 486-488. Left male palps, prolateral, dorsal, and retrolateral views.



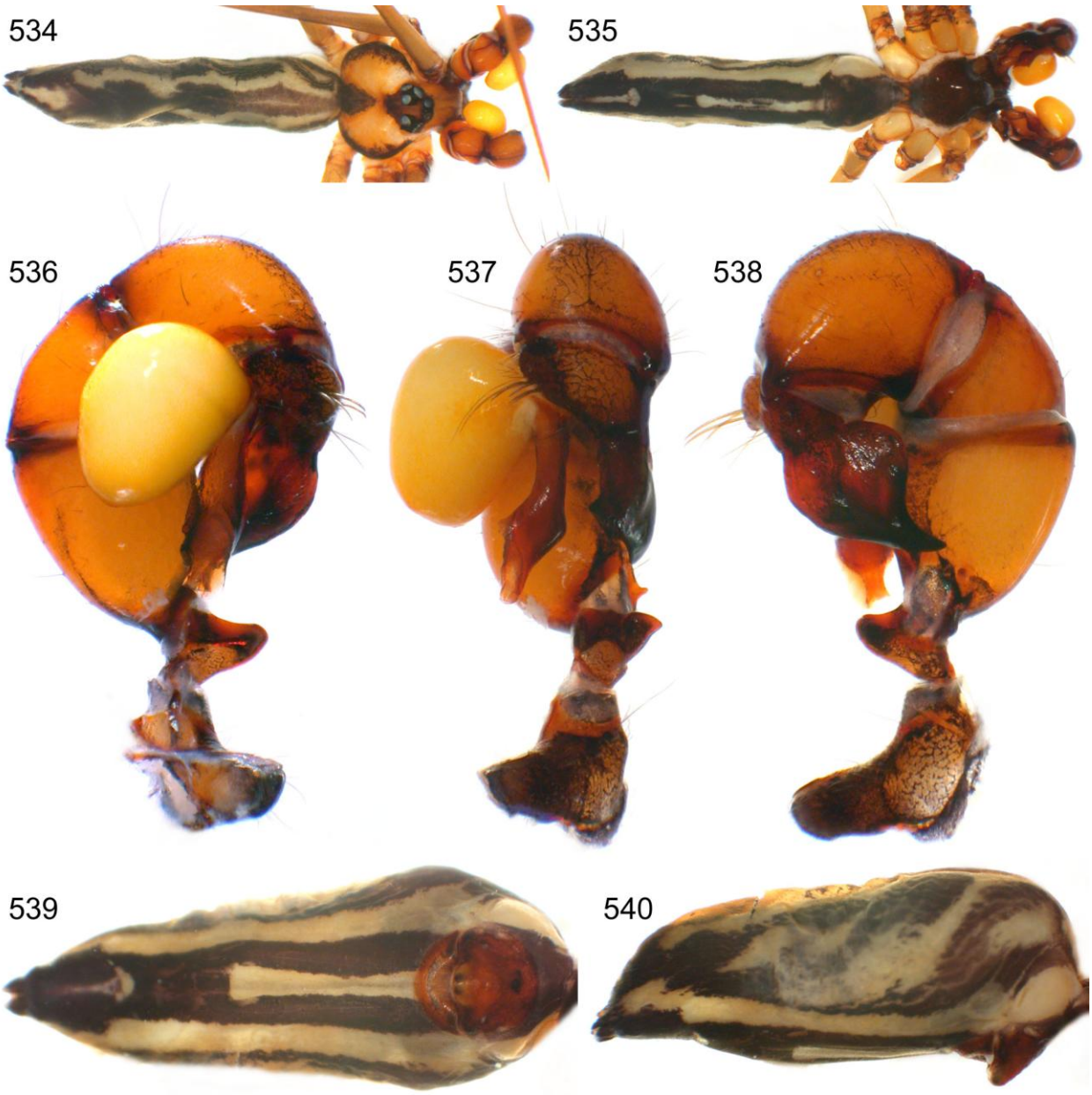
FIGURES 489-498. *Smeringopina etome* n. sp. (489-493) and *S. africana* (Thorell) (494-498). 489-490, 494-495. Males, dorsal, ventral, and lateral views. 491-493, 496-498. Left male palps, prolateral, dorsal, and retrolateral views. Arrow points at ventral sclerotized ridge.

FIGURES 499-508. *Smeringopina simplex* Kraus (499-503) and *S. bwiti* n. sp. (504-508). 499-500, 504-505. Males, dorsal and ventral views. 501-503, 506-508. Left male palps, prolateral, dorsal, and retrolateral views.

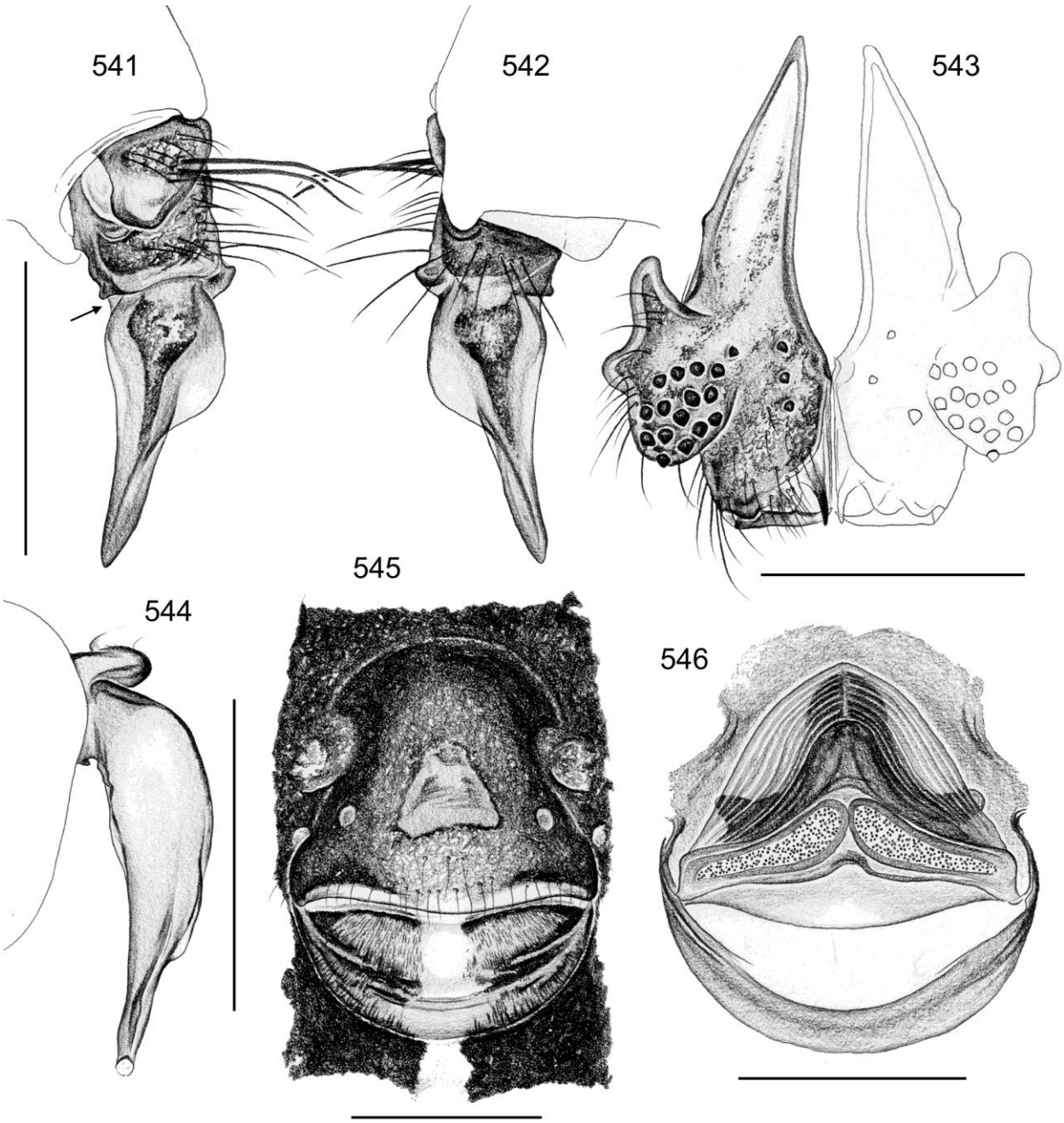
FIGURES 509-524. Female abdomens in ventral and lateral views, *simplex* group. 509-510. *Smeringopina camerunensis* Kraus. 511-512. *S. djidji* n. sp. 513-514. *S. ogooue* n. sp. 515-516. *S. bioko* n. sp. 517-518. *S. etome* n. sp. 519-520. *S. africana* (Thorell). 521-522. *S. simplex* Kraus. 523-524. *S. bwiti* n. sp.



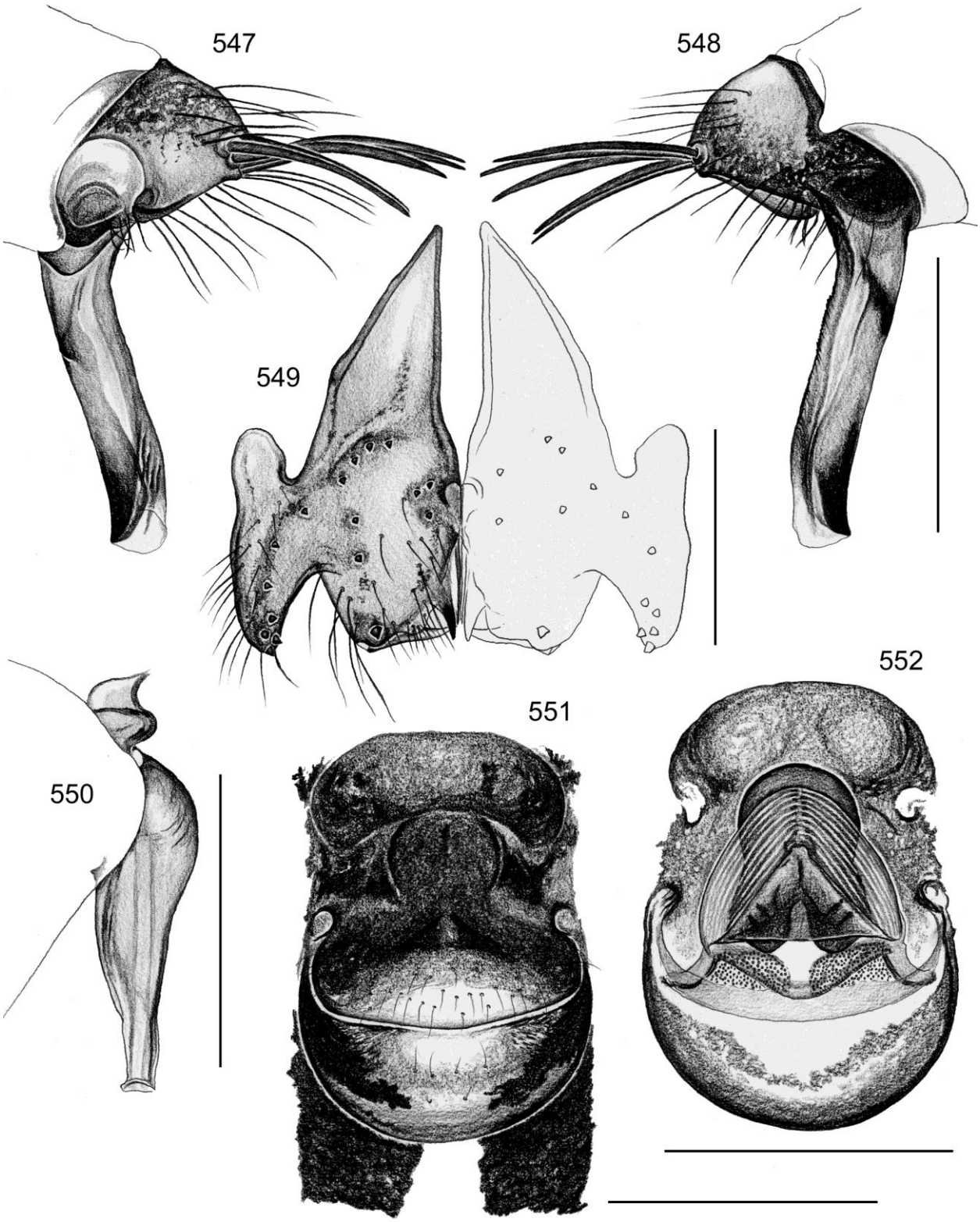
FIGURES 525-533. Cleared female genitalia in dorsal view, *simplex* group. 525. *Smeringopina camerunensis* Kraus. 526. *S. djidji* n. sp. 527. *S. ogooue* n. sp. 528. *S. bioko* n. sp. 529. *S. etome* n. sp. 530. *S. africana* (Thorell). 531. *S. simplex* Kraus. 532. *S. bwiti* n. sp. 533. *S. luki* n. sp.



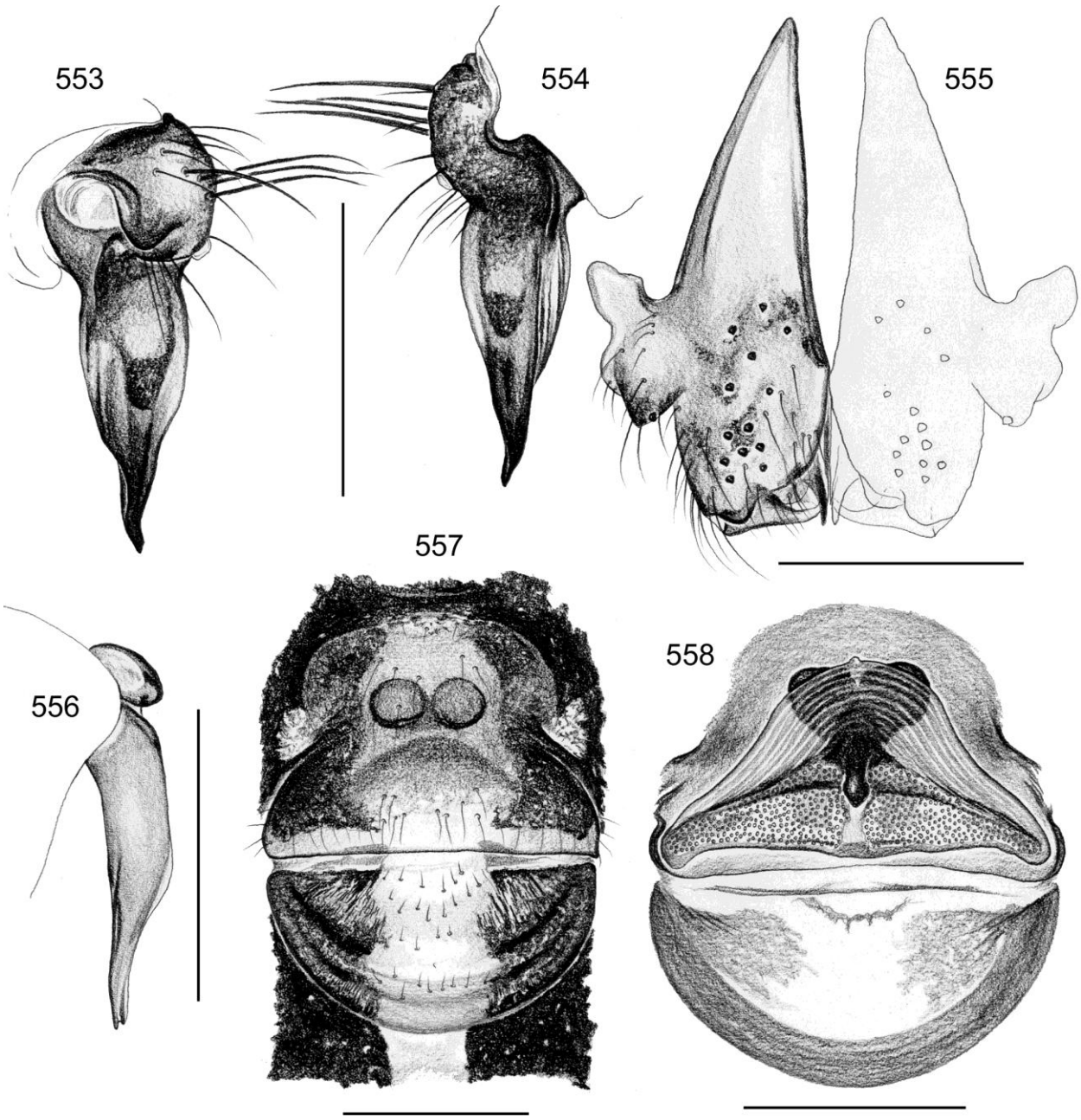
FIGURES 534-540. *Smeringopina luki* n. sp. 534-535. Male, dorsal and ventral views. 536-538. Left male palp, prolateral, dorsal, and retrolateral views. 539-540. Female abdomen, ventral and lateral views.



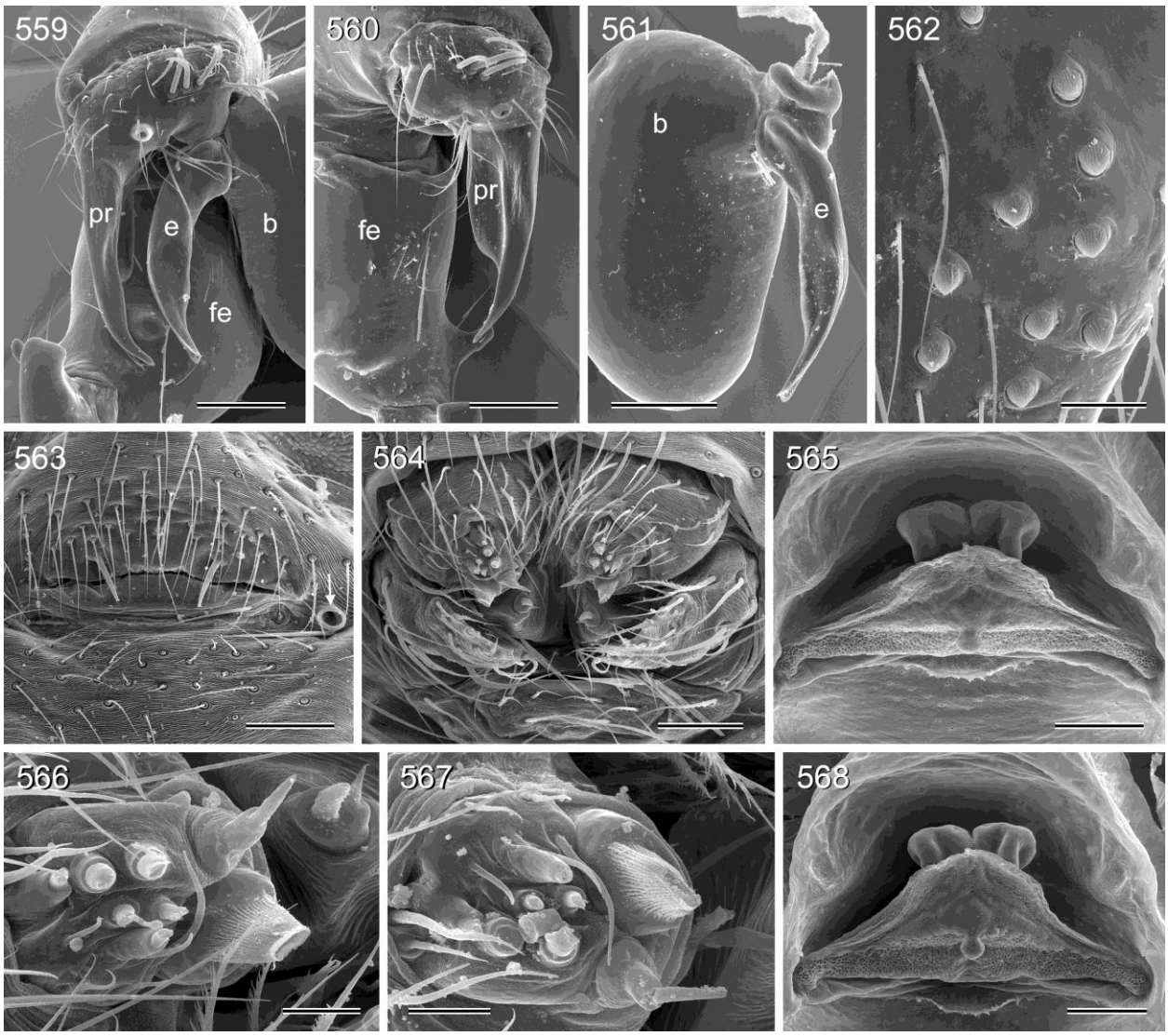
FIGURES 541-546. *Smeringopina camerunensis* Kraus. 541-542. Left procursus, prolateral and retrolateral views; arrow points at hinge. 543. Male chelicerae, frontal view. 544. Left embolus, prolateral view. 545. Epigynum, ventral view. 546. Cleared female genitalia, dorsal view. Scale lines: 0.5.



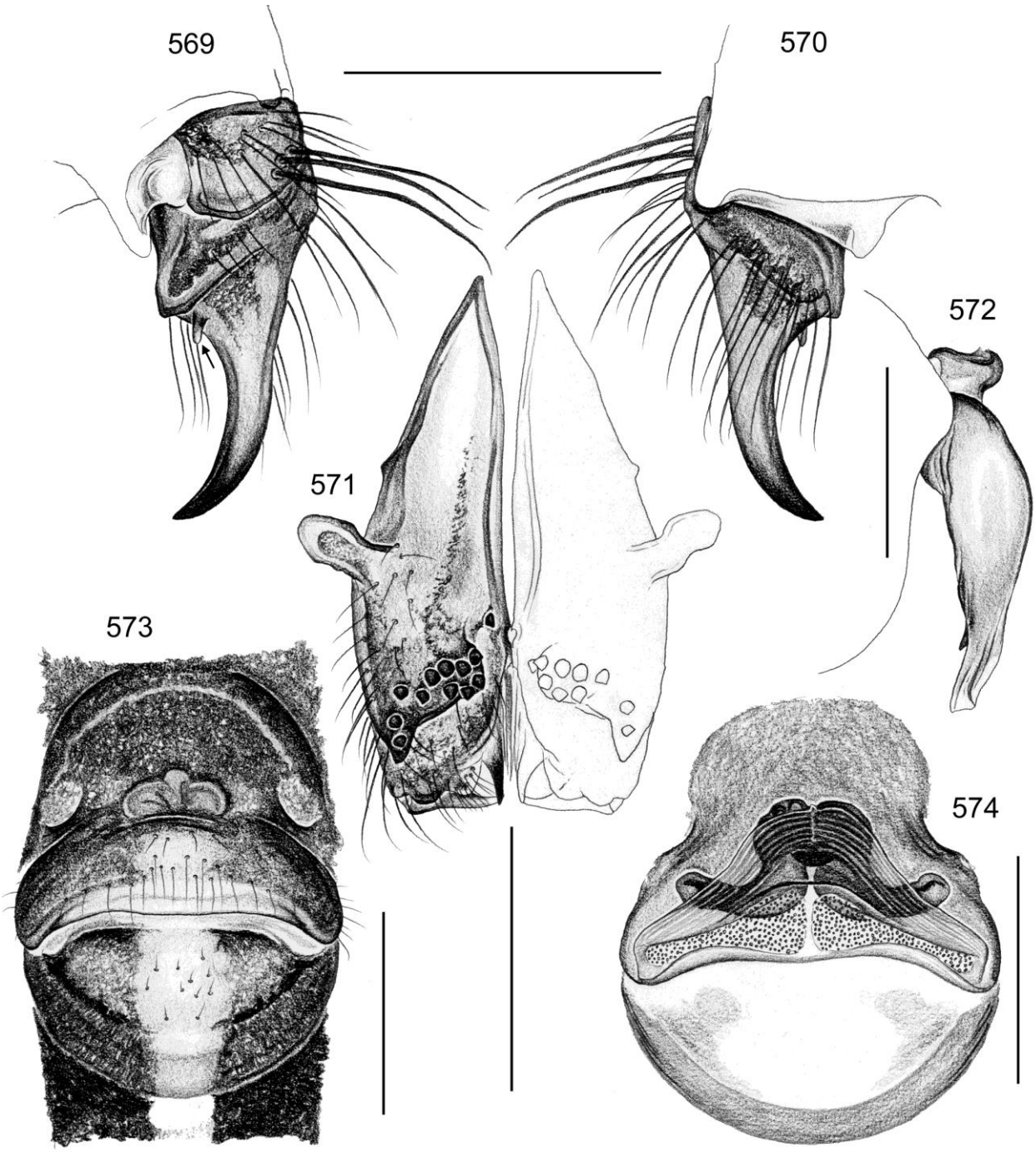
FIGURES 547-552. *Smeringopina djidji* n. sp. 547-548. Left procursus, prolateral and retrolateral views. 549. Male chelicerae, frontal view. 550. Left embolus, prolateral view. 551. Epigynum, ventral view. 552. Cleared female genitalia, dorsal view. Scale lines: 0.5 (547-550), 1.0 (551-552).



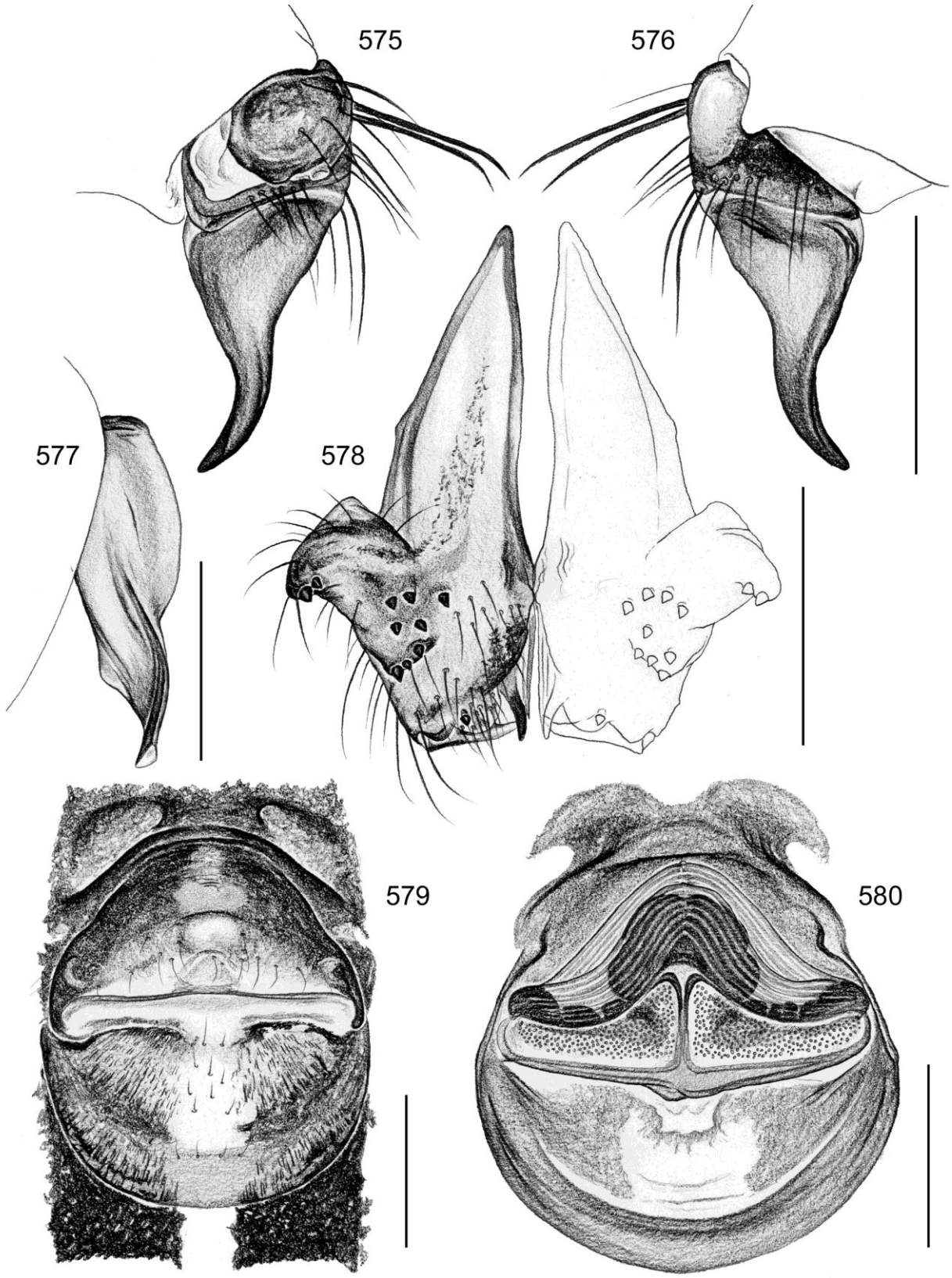
FIGURES 553-558. *Smeringopina ogooue* n. sp. 553-554. Left procursus, prolateral and retrolateral views. 555. Male chelicerae, frontal view. 556. Left embolus, prolateral view. 557. Epigynum, ventral view. 558. Cleared female genitalia, dorsal view. Scale lines: 0.5.



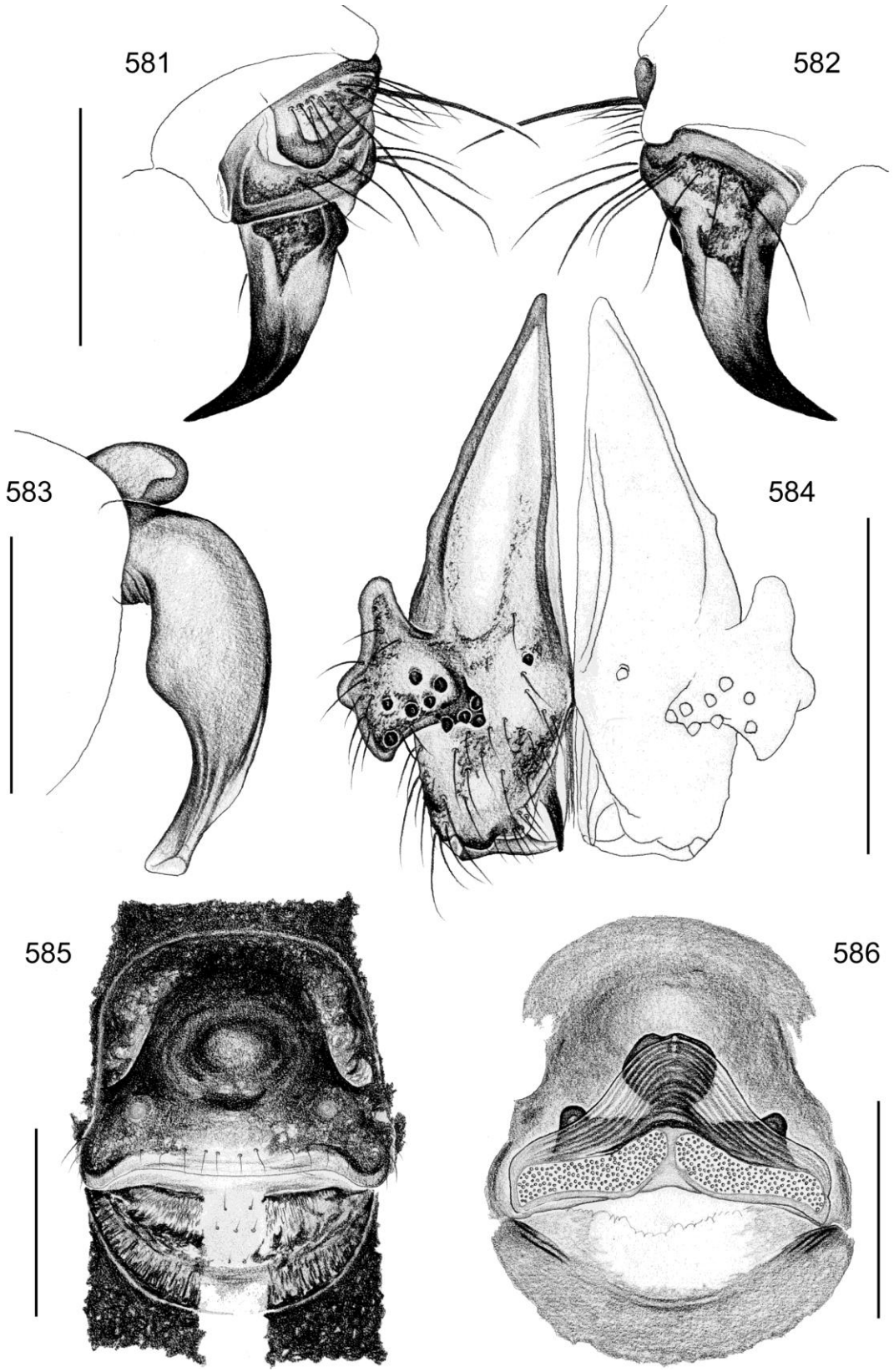
FIGURES 559-568. *Smeringopina ogooue* n. sp. 559. Right male palp, dorsal view. 560. Left palp (without bulb), prolatero-dorsal view. 561. Left bulb. 562. Modified hairs on male chelicerae. 563. Male gonopore; arrow points at unidentified asymmetric structure. 564. Male spinnerets. 565. Cleared female genitalia, dorsal (slightly frontal) view. 566. Male ALS and PMS. 567. Female ALS. 568. Cleared female genitalia, dorsal view. Abbreviations: b: bulb; e: embolus; fe: femur; pr: procursus. Scale lines: 20 µm (566, 567), 40 µm (562), 80 µm (564), 100 µm (563), 200 µm (559-561, 565, 568).



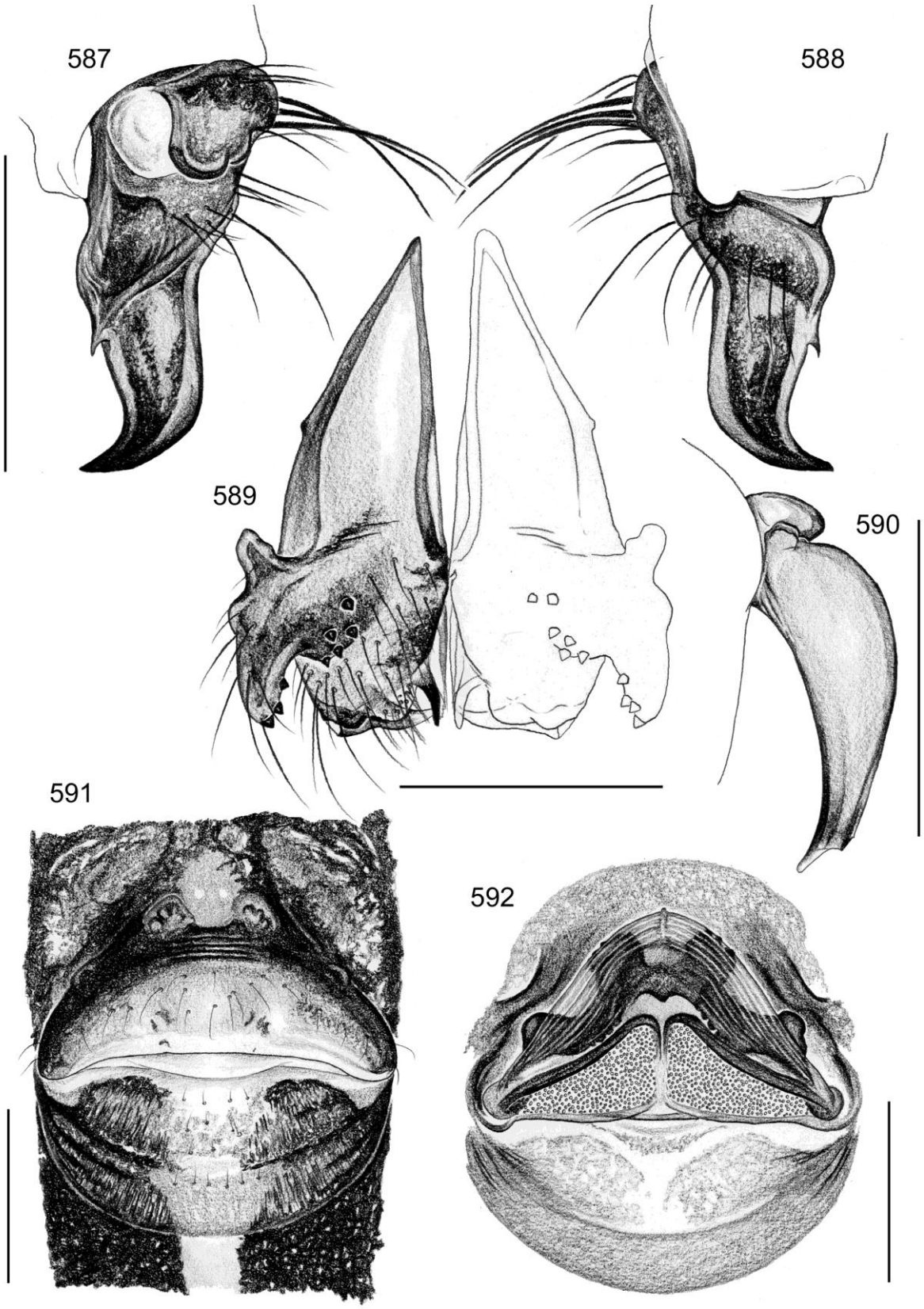
FIGURES 569-574. *Smeringopina bioko* n. sp. 569-570. Left procursus, prolateral and retrolateral views; arrow points at distinctive process. 571. Male chelicerae, frontal view. 572. Left embolus, prolateral view. 573. Epigynum, ventral view. 574. Cleared female genitalia, dorsal view. Scale lines: 0.3 (572), 0.5 (569-571, 573-574).



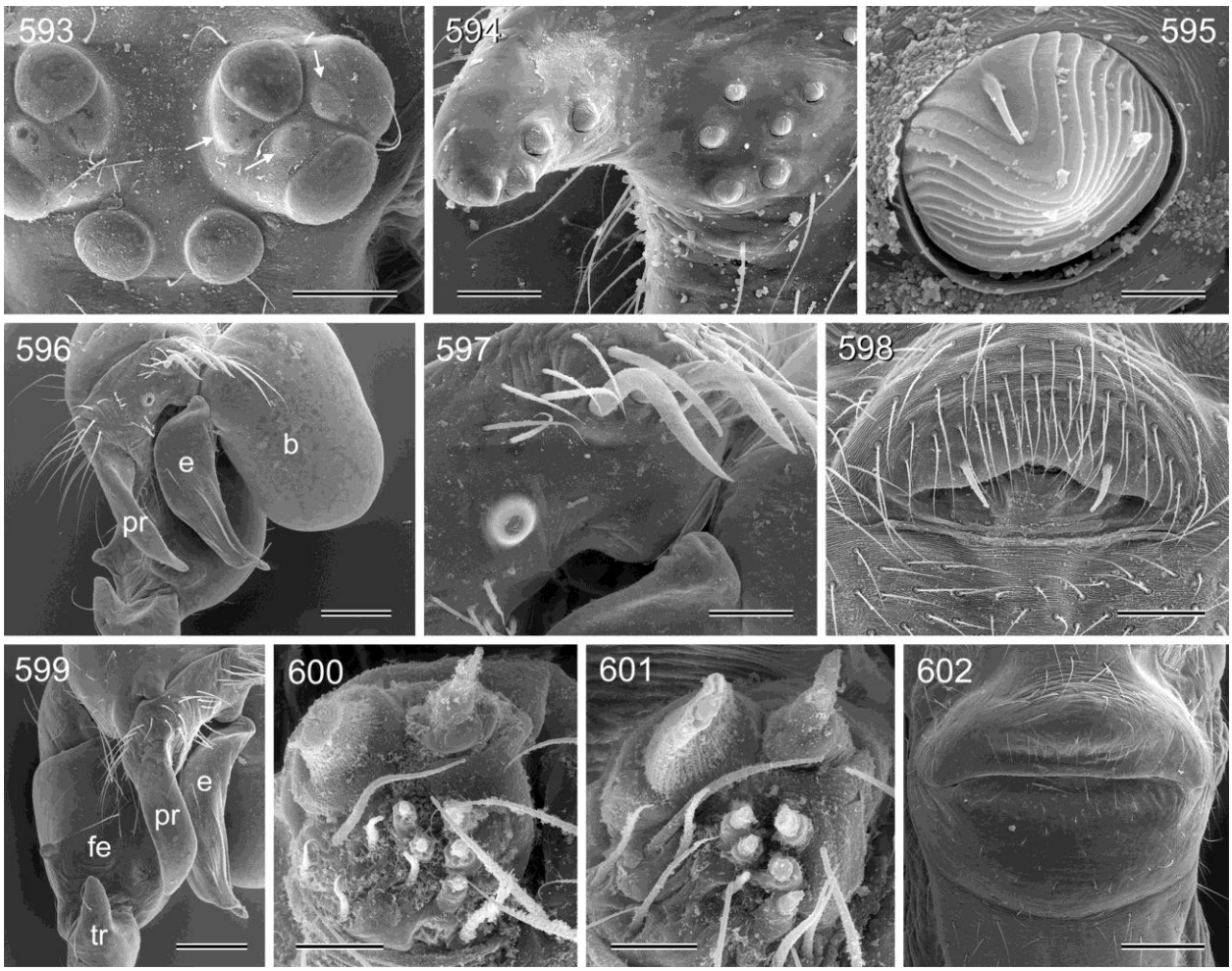
FIGURES 575-580. *Smeringopina etome* n. sp. 575-576. Left procursus, prolateral and retrolateral views. 577. Left embolus, prolateral view. 578. Male chelicerae, frontal view. 579. Epigynum, ventral view. 580. Cleared female genitalia, dorsal view. Scale lines: 0.3 (577), 0.5 (575-576, 578-580).



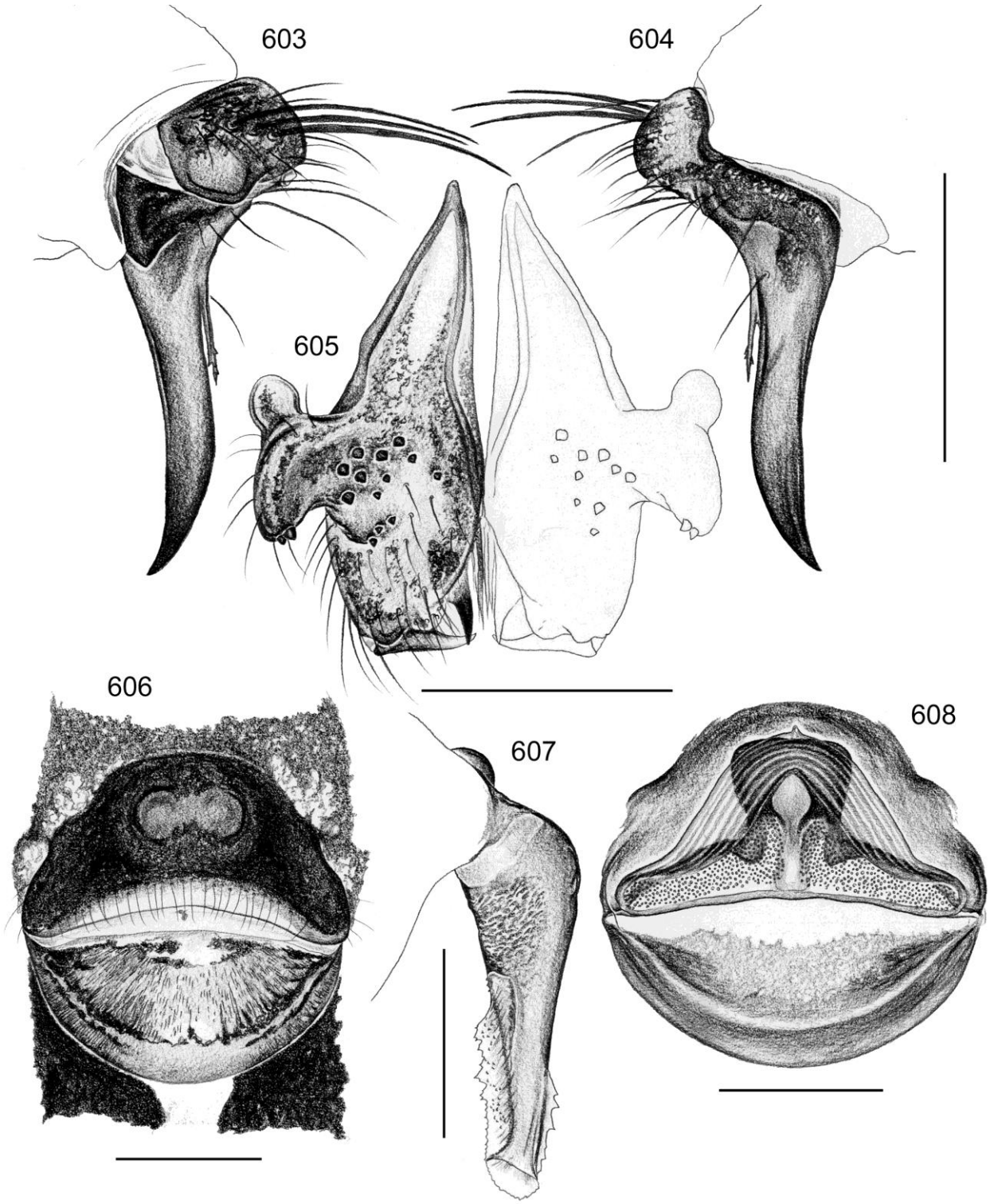
FIGURES 581-586. *Smeringopina africana* (Thorell). 581-582. Left procursus, prolateral and retrolateral views. 583. Left embolus, prolateral view. 584. Male chelicerae, frontal view. 585. Epigynum, ventral view. 586. Cleared female genitalia, dorsal view. Scale lines: 0.3 (581-583), 0.5 (584-586).



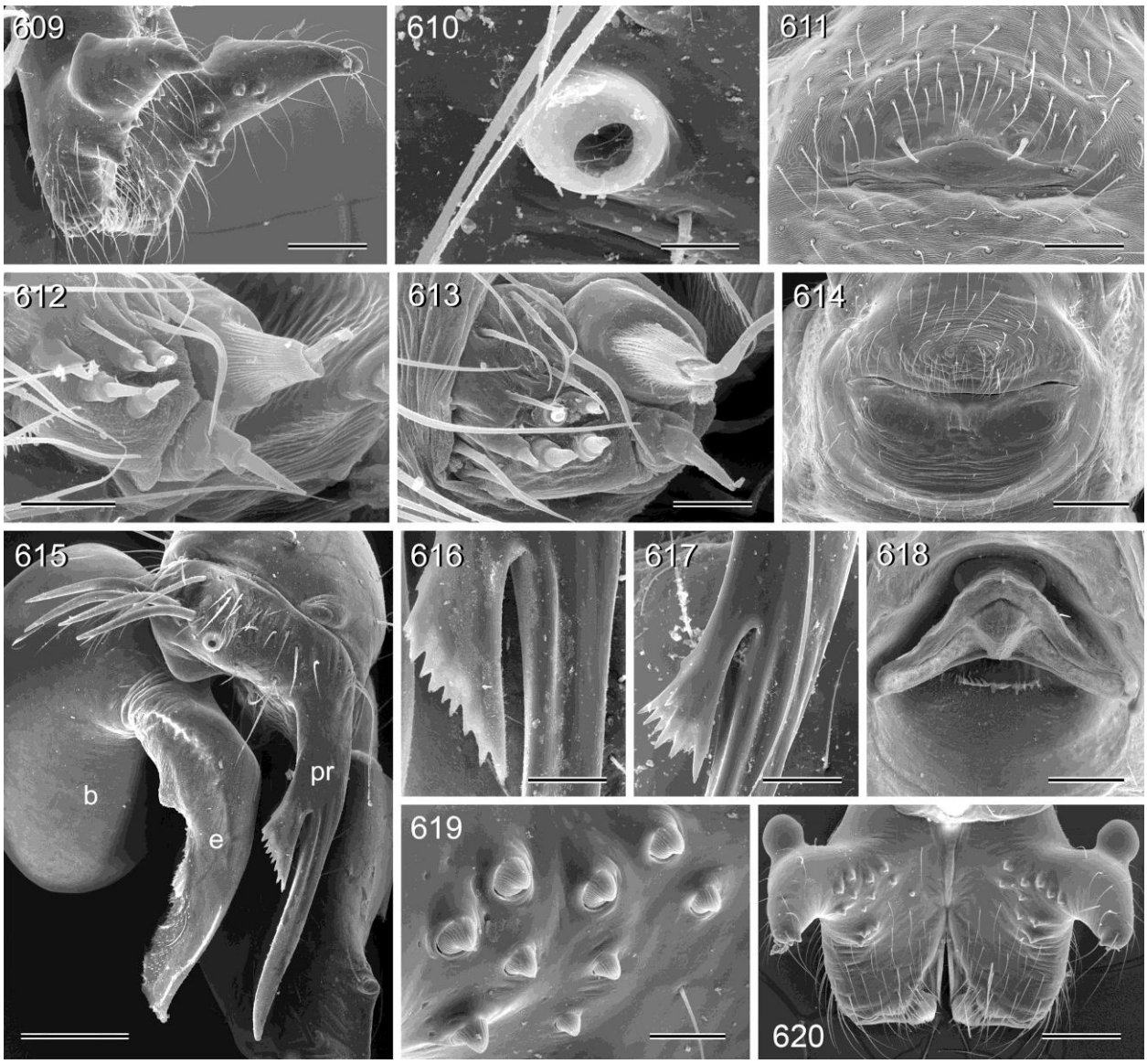
FIGURES 587-592. *Smeringopina simplex* Kraus. 587-588. Left procursus, prolateral and retrolateral views. 589. Male chelicerae, frontal view. 590. Left embolus, prolateral view. 591. Epigynum, ventral view. 592. Cleared female genitalia, dorsal view. Scale lines: 0.5.



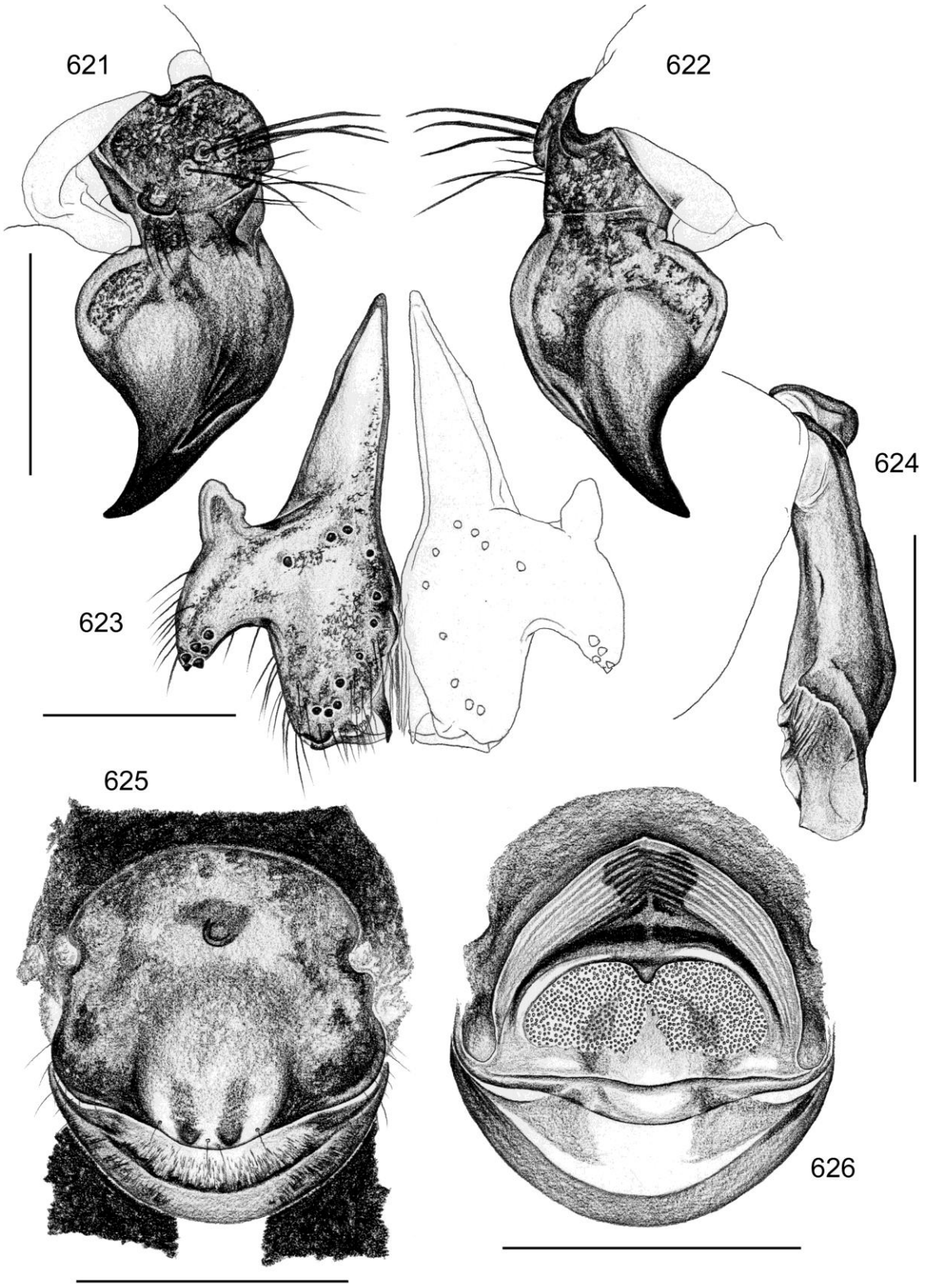
FIGURES 593-602. *Smeringopina simplex* Kraus. 593. Female ocular area with 'pseudo-lenses' (arrows), dorsal view. 594. Right male cheliceral apophysis. 595. Modified hair on male chelicerae. 596. Right palp, dorsal view. 597. Macrotrichia and tarsal organ on right male palp. 598. Male gonopore. 599. Right palp, retrolatero-dorsal view. 600. Male ALS. 601. Female ALS. 602. Epigynum, ventral view. Abbreviations: b: bulb; e: embolus; fe: femur; pr: procursus; tr: trochanter. Scale lines: 6 µm (595), 20 µm (600, 601), 60 µm (594, 597), 100 µm (598), 200 µm (593, 596, 599), 300 µm (602).



FIGURES 603-608. *Smeringopina bwiti* n. sp. 603-604. Left procursus, prolateral and retrolateral views. 605. Male chelicerae, frontal view. 606. Epigynum, ventral view. 607. Left embolus, prolateral view. 608. Cleared female genitalia, dorsal view. Scale lines: 0.3 (607), 0.5 (603-606, 608).



FIGURES 609-620. *Smeringopina etome* n. sp. (609-614) and *S. bwiti* n. sp. (615-620). 609. Male chelicerae. 610. Male palpal tarsal organ. 611. Male gonopore. 612. Male ALS. 613. Female ALS. 614. Epigynum, ventral view. 615. Left palp, dorsal view. 616-617. Processes of procursus, males from near Tchad (616) and from Moulandoufouala (617). 618. Cleared female genitalia, dorsal view. 619. Modified hairs on male chelicerae. 620. Male chelicerae. Abbreviations: b: bulb; e: embolus; pr: procursus. Scale lines: 20 µm (610, 612-613), 40 µm (619), 50 µm (616-617), 100 µm (611), 200 µm (609, 615, 620), 300 µm (614, 618).



FIGURES 621-626. *Smeringopina luki* n. sp. 621-622. Left procursus, prolateral and retrolateral views. 623. Male chelicerae, frontal view. 624. Left embolus, prolateral view. 625. Epigynum, ventral view. 626. Cleared female genitalia, dorsal view. Scale lines: 0.5 (621-624), 1.0 (625-626).

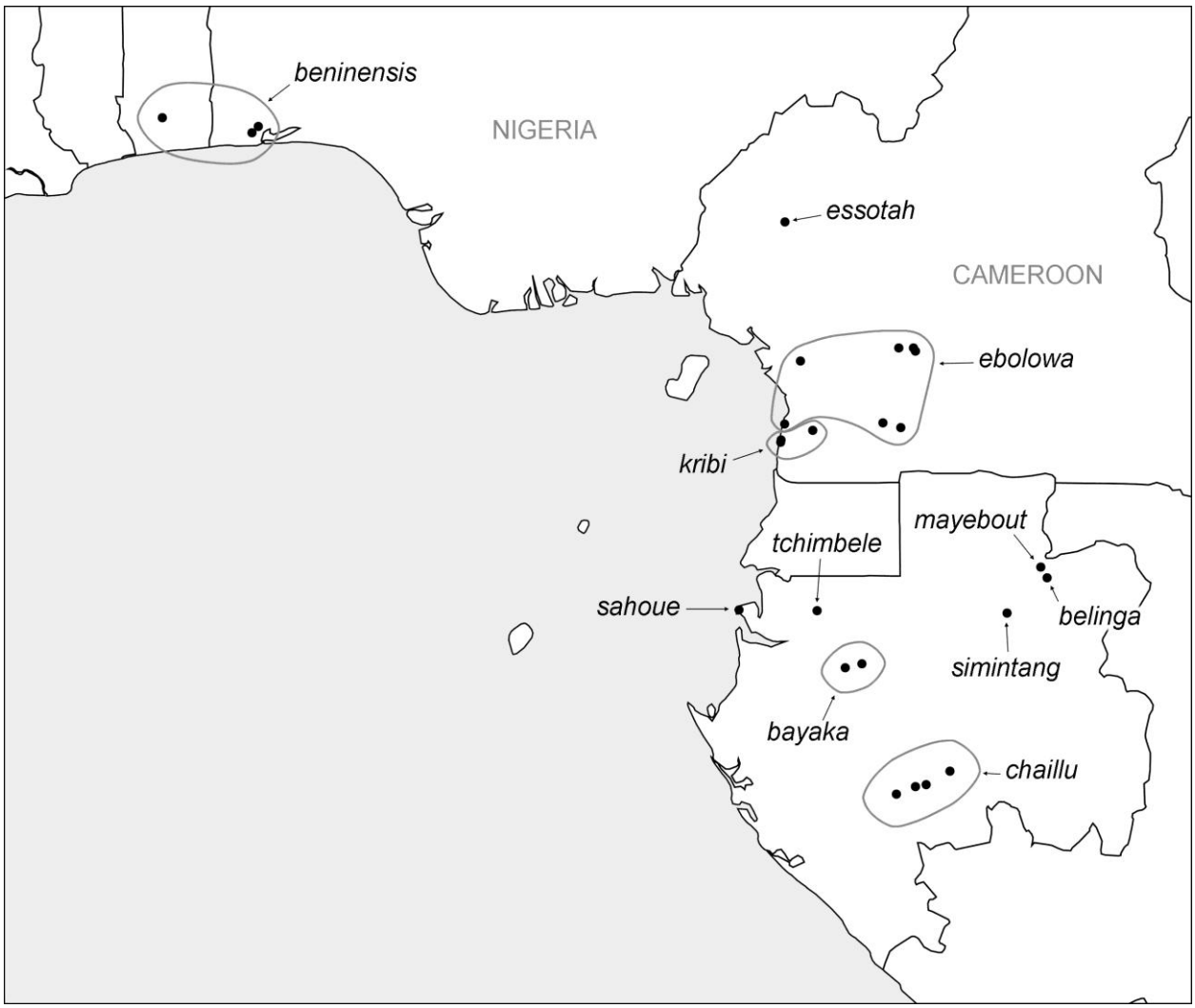
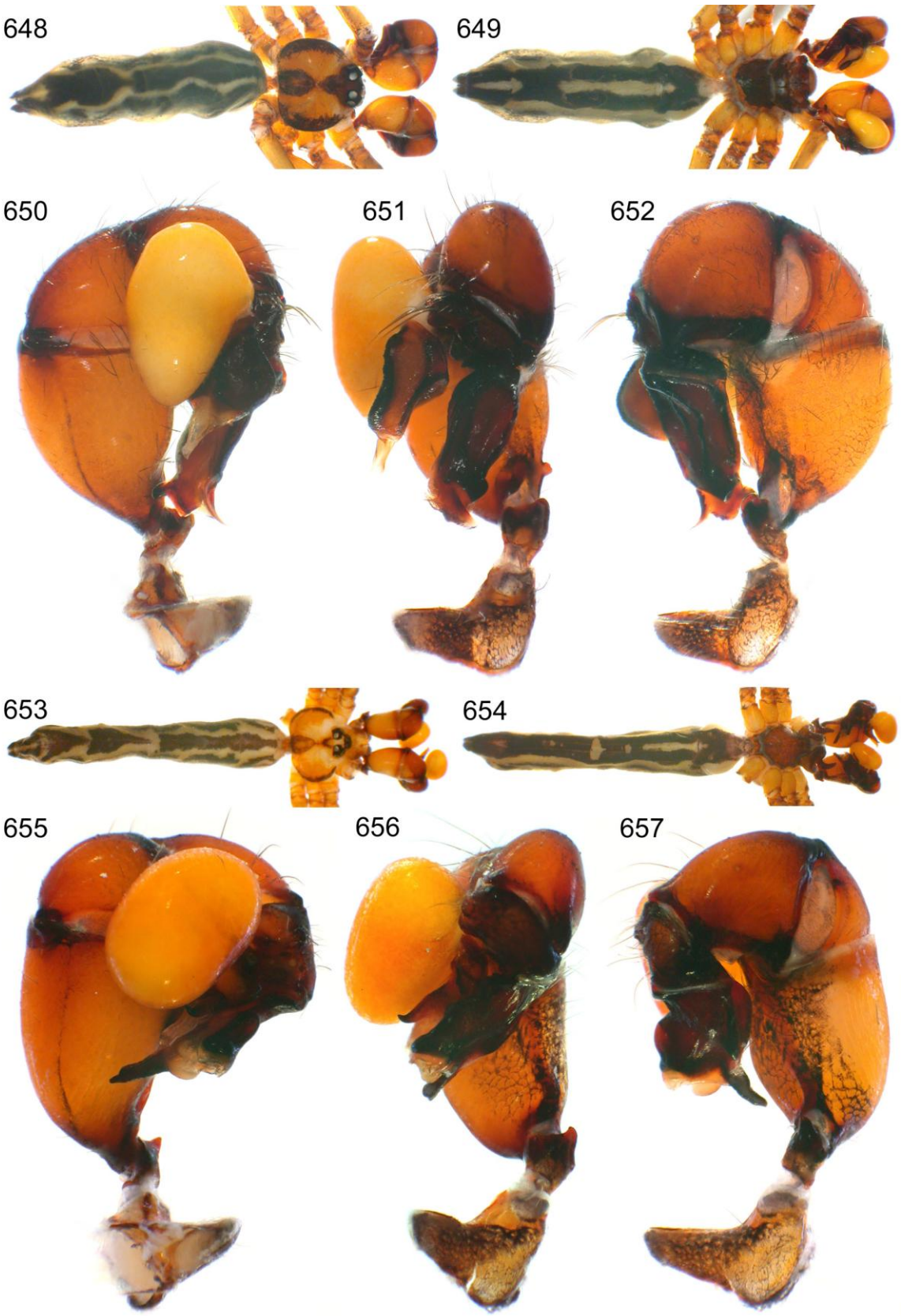


FIGURE 627. Known distribution of the *beninensis* species group.

FIGURES 628-637. *Smeringopina ebolowa* n. sp. (628-632) and *S. essotah* n. sp. (633-637). 628-629, 633-634. Males, dorsal, lateral, and ventral views. 630-632, 635-637. Left male palps, prolateral, dorsal, and retrolateral views. Arrow points at ventral sclerotized ridge.

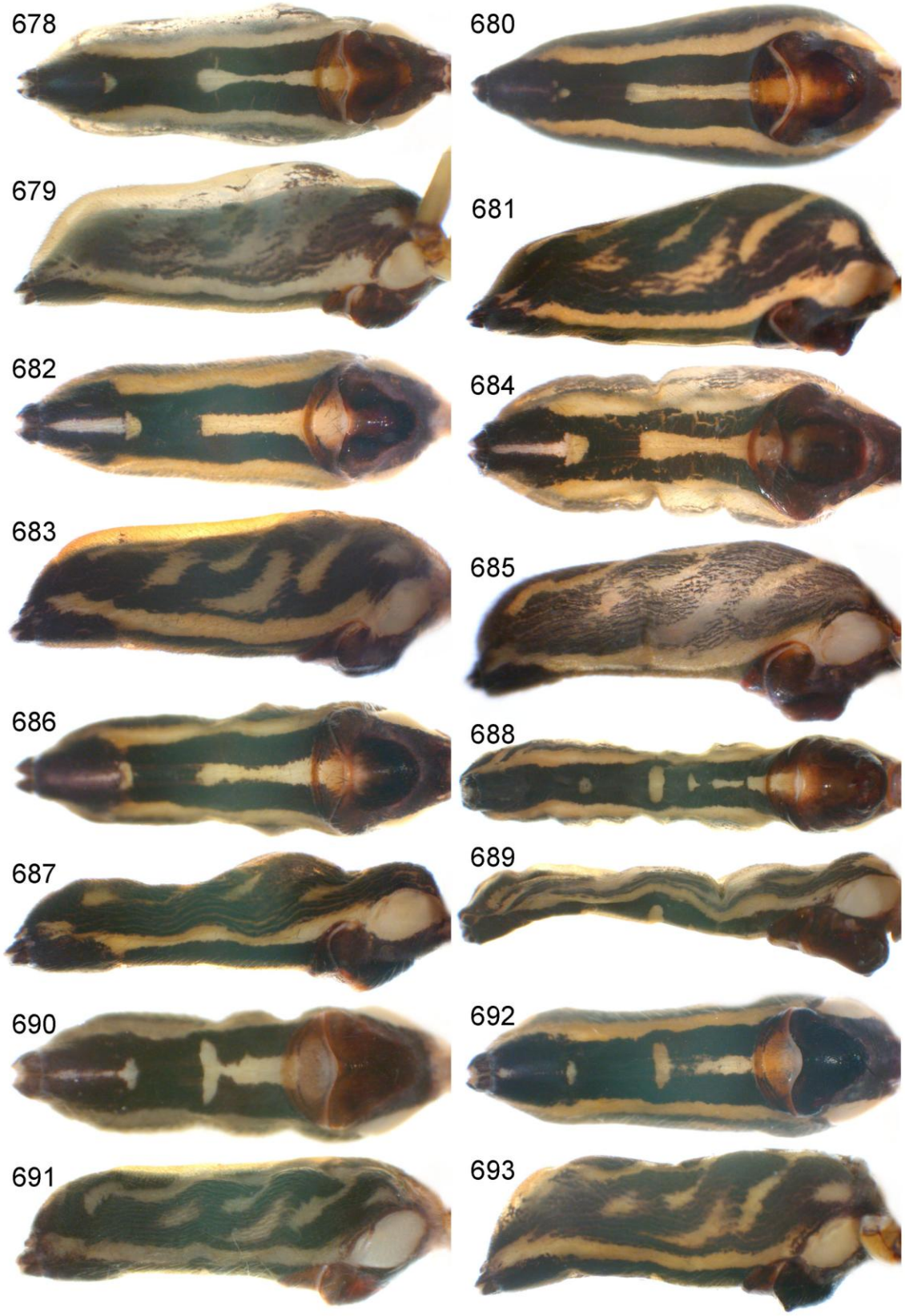
FIGURES 638-647. *Smeringopina mayebout* n. sp. (638-642) and *S. simintang* n. sp. (643-647). 638-639, 643-644. Males, dorsal and ventral views. 640-642, 645-647. Left male palps, prolateral, dorsal, and retrolateral views.



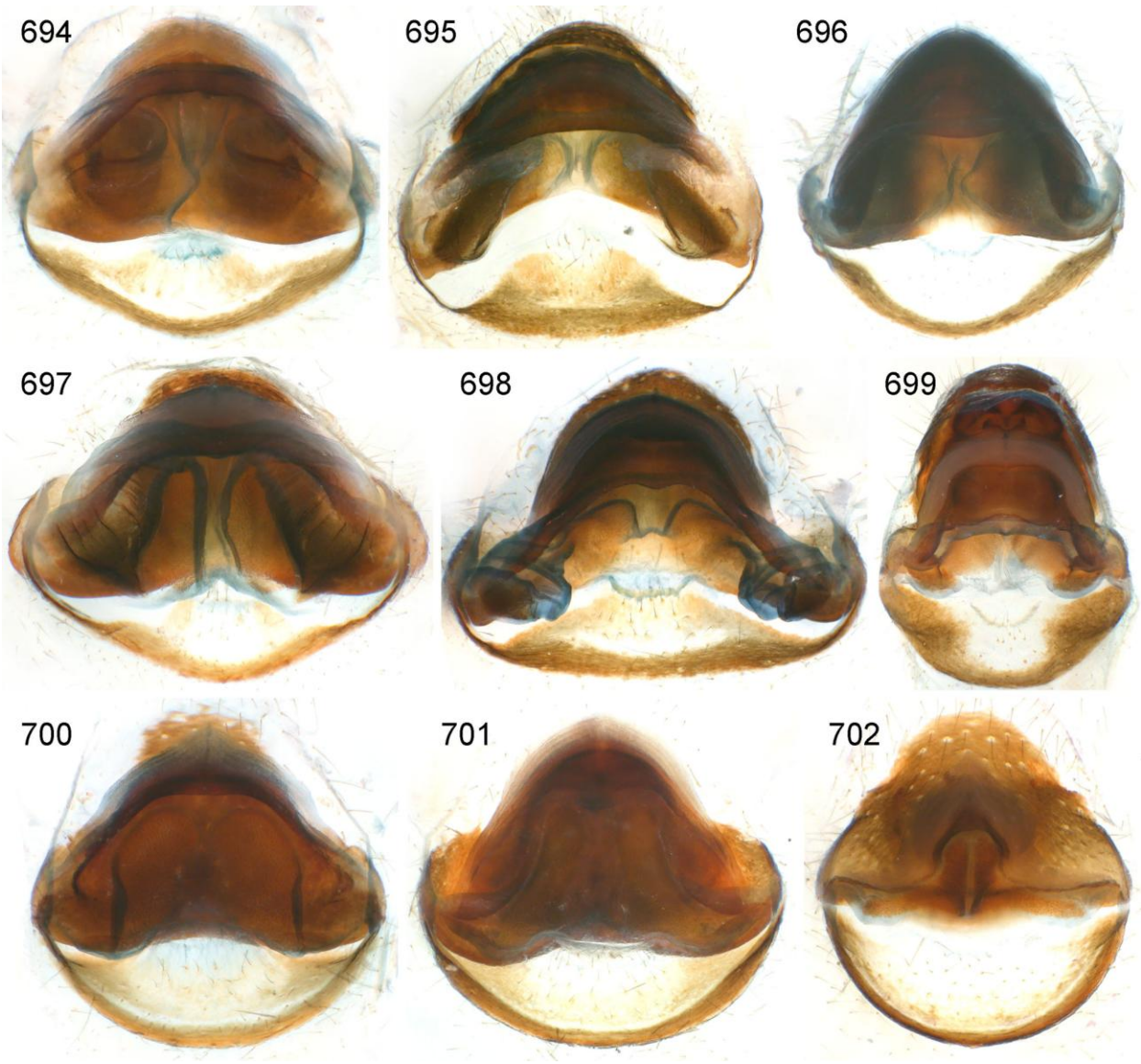
FIGURES 648-657. *Smeringopina belinga* n. sp. (648-652) and *S. beninensis* Kraus (653-657). 648-649, 653-654. Males, dorsal and ventral views. 650-652, 655-657. Left male palps, prolateral, dorsal, and retrolateral views.

FIGURES 658-667. *Smeringopina kribi* n. sp. (658-662) and *S. sahoue* n. sp. (663-667). 658-659, 663-664. Males, dorsal and ventral views. 660-662, 665-667. Left male palps, prolateral, dorsal, and retrolateral views.

FIGURES 668-677. *Smeringopina tchimbele* n. sp. (668-672) and *S. bayaka* n. sp. (673-677). 668-669, 673-674. Males, dorsal and ventral views. 670-672, 675-677. Left male palps, prolateral, dorsal, and retrolateral views.

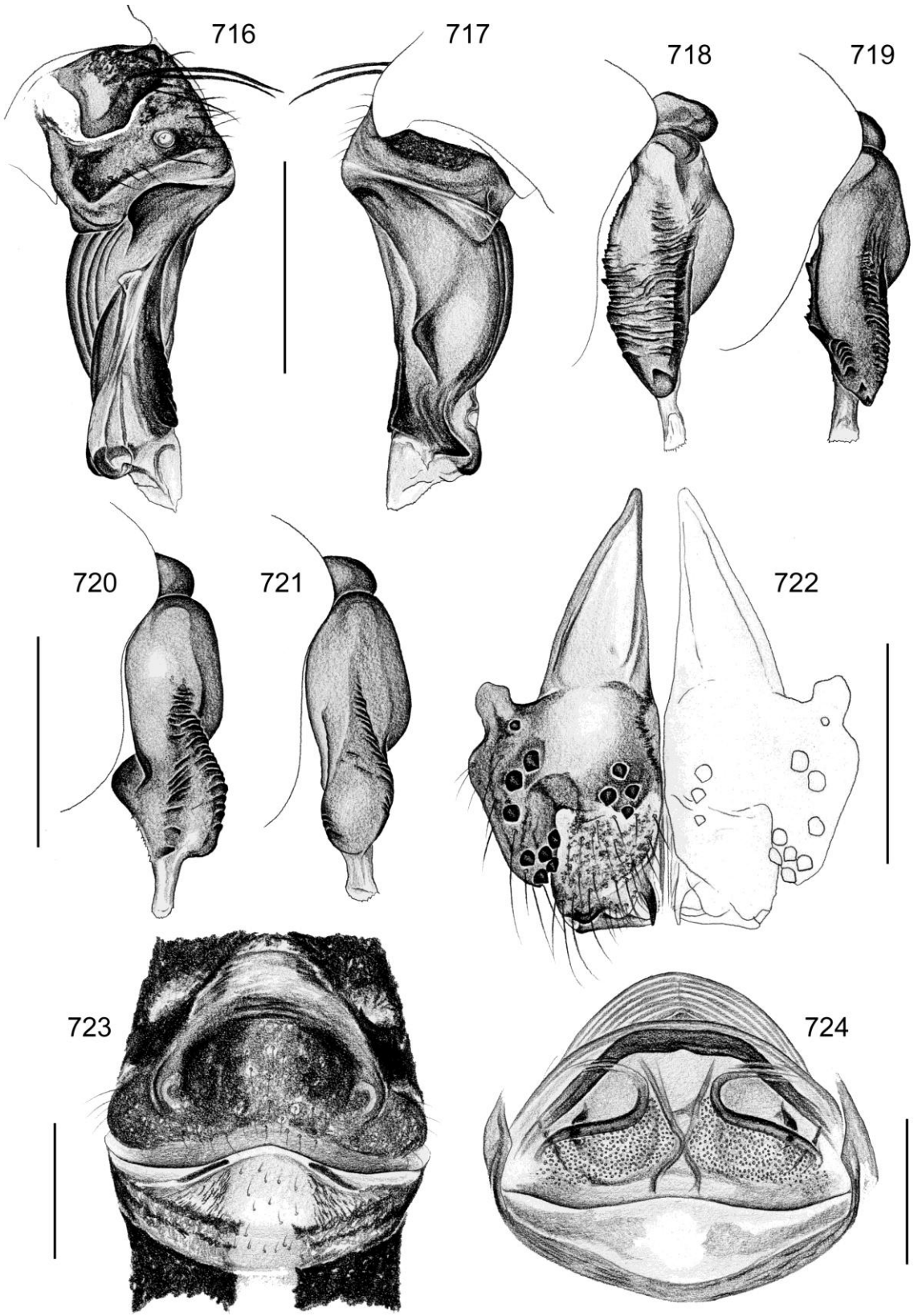


FIGURES 678-693. Female abdomens in ventral and lateral views, *beninensis* group. 678-679. *Smeringopina ebolowa* n. sp. 680-681. *S. essotah* n. sp. 682-683. *S. mayebout* n. sp. 684-685. *S. simintang* n. sp. 686-687. *S. belinga* n. sp. 688-689. *S. beninensis* Kraus. 690-691. *S. kribi* n. sp. 692-693. *S. sahoue* n. sp.

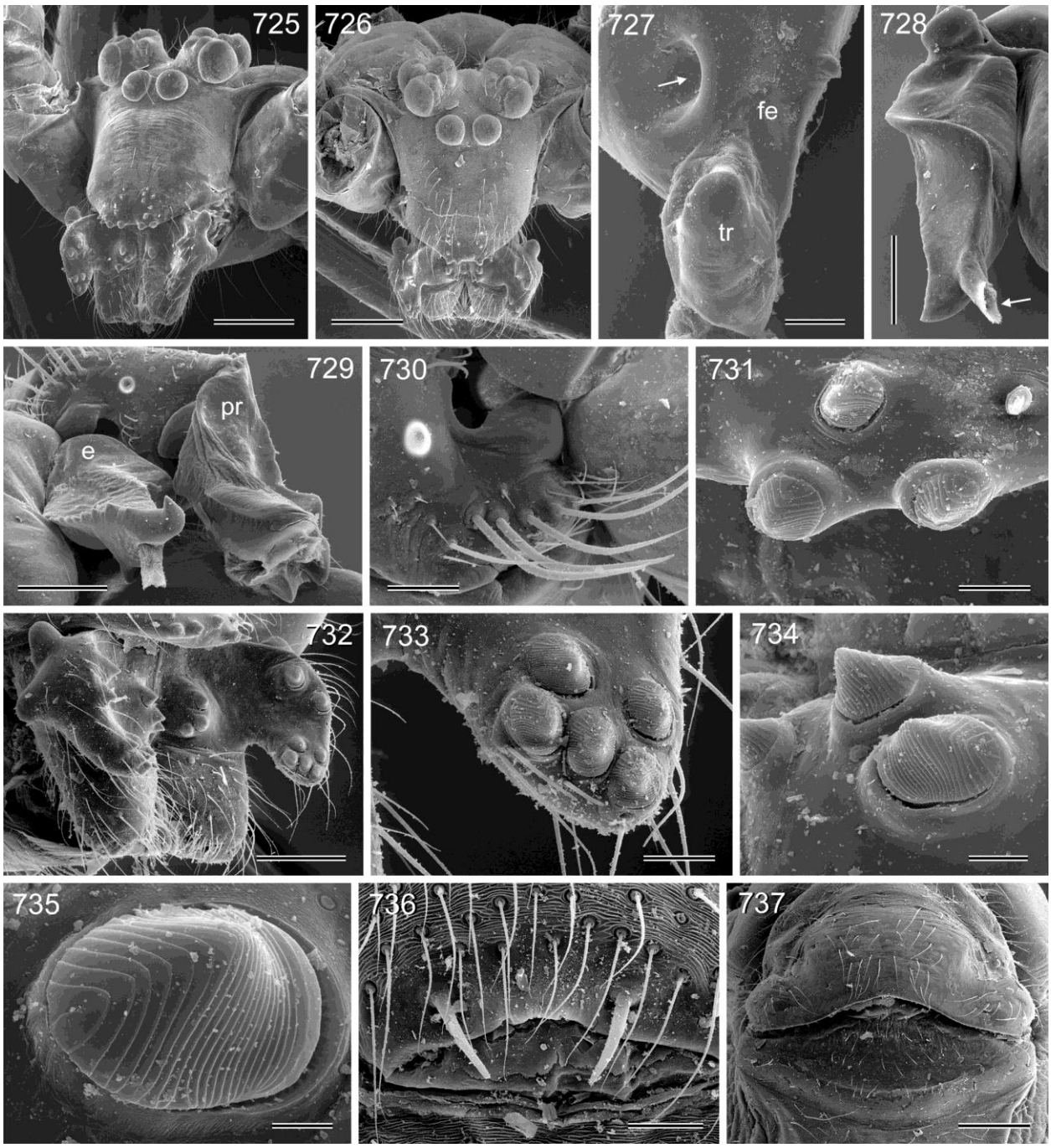


FIGURES 694-702. Cleared female genitalia in dorsal view, *beninensis* group. 694. *Smeringopina ebolowa* n. sp. 695. *S. essotah* n. sp. 696. *S. mayebout* n. sp. 697. *S. simintang* n. sp. 698. *S. belinga* n. sp. 699. *S. beninensis* Kraus. 700. *S. kribi* n. sp. 701. *S. sahoue* n. sp. 702. *S. tchimbele* n. sp.

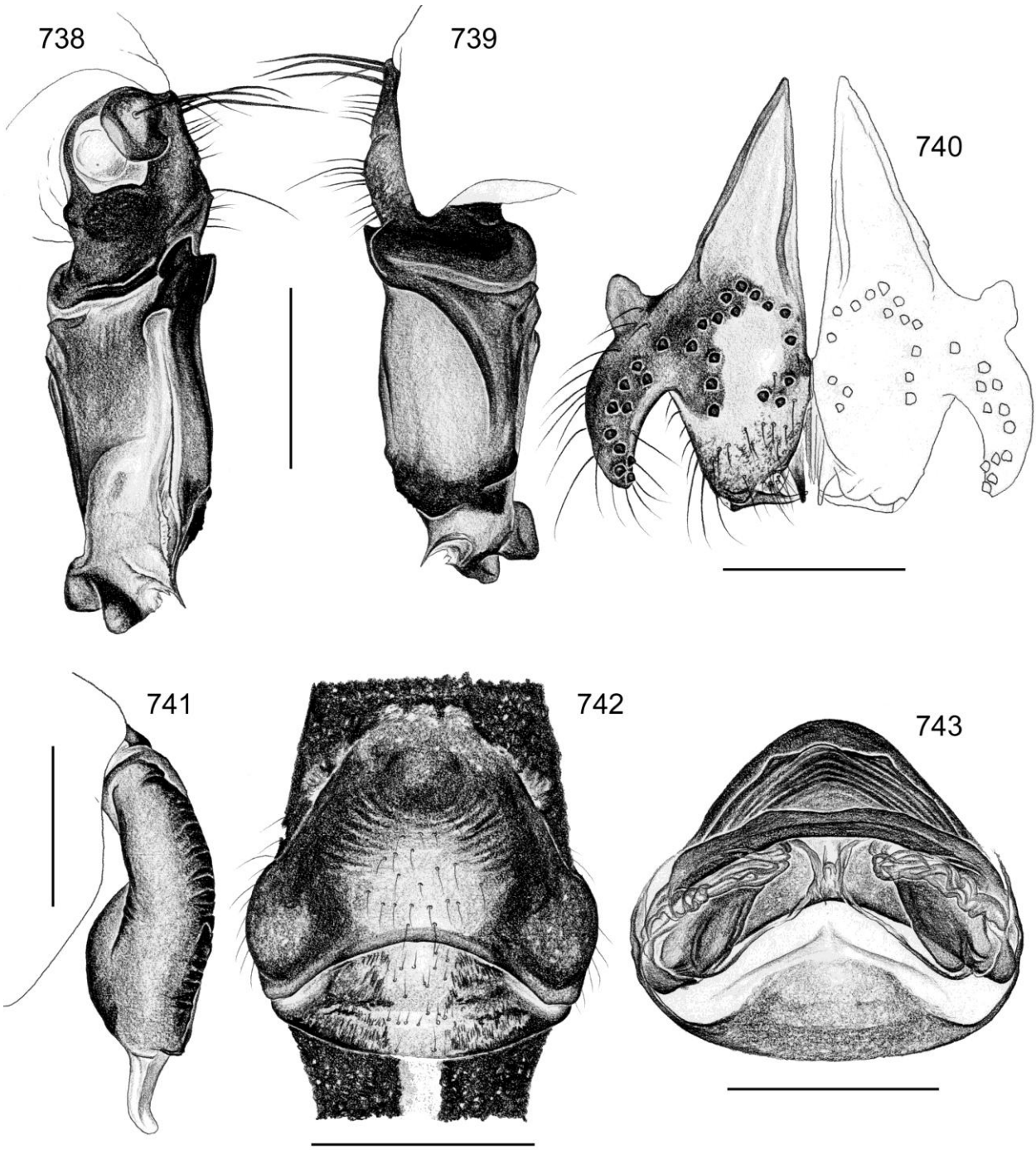
FIGURES 703-715. *Smeringopina tchimbele* n. sp. (703-704), *S. bayaka* n. sp. (705-707), and *S. chaillu* n. sp. (708-715). 703-706, 708-709. Female abdomens, ventral and lateral views. 707, 710. Cleared female genitalia, dorsal views. 711-712. Male, dorsal and ventral views. 713-715. Left male palp, prolateral, dorsal, and retrolateral views.



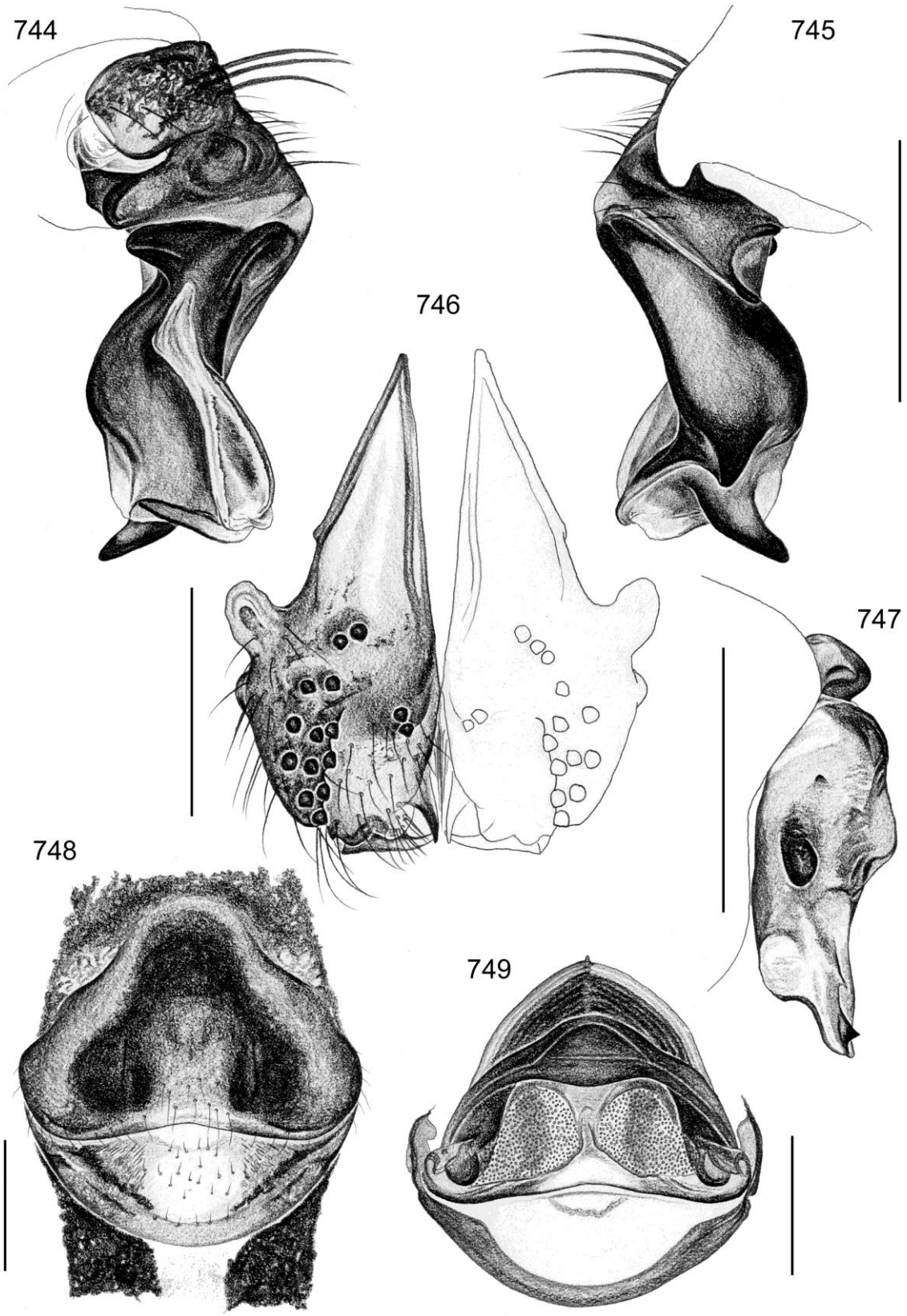
FIGURES 716-724. *Smeringopina ebolowa* n. sp. 716-717. Left procursus, prolateral and retrolateral views (type locality). 718-721. Left emboli, prolateral views, males from near Ebolowa (type locality, 718), near Kribi (719), Yaoundé (720), and Koukoué (721). 722. Male chelicerae, frontal view (type locality). 723. Epigynum, ventral view. 724. Cleared female genitalia, dorsal view. Scale lines: 0.5 (all emboli at same scale).



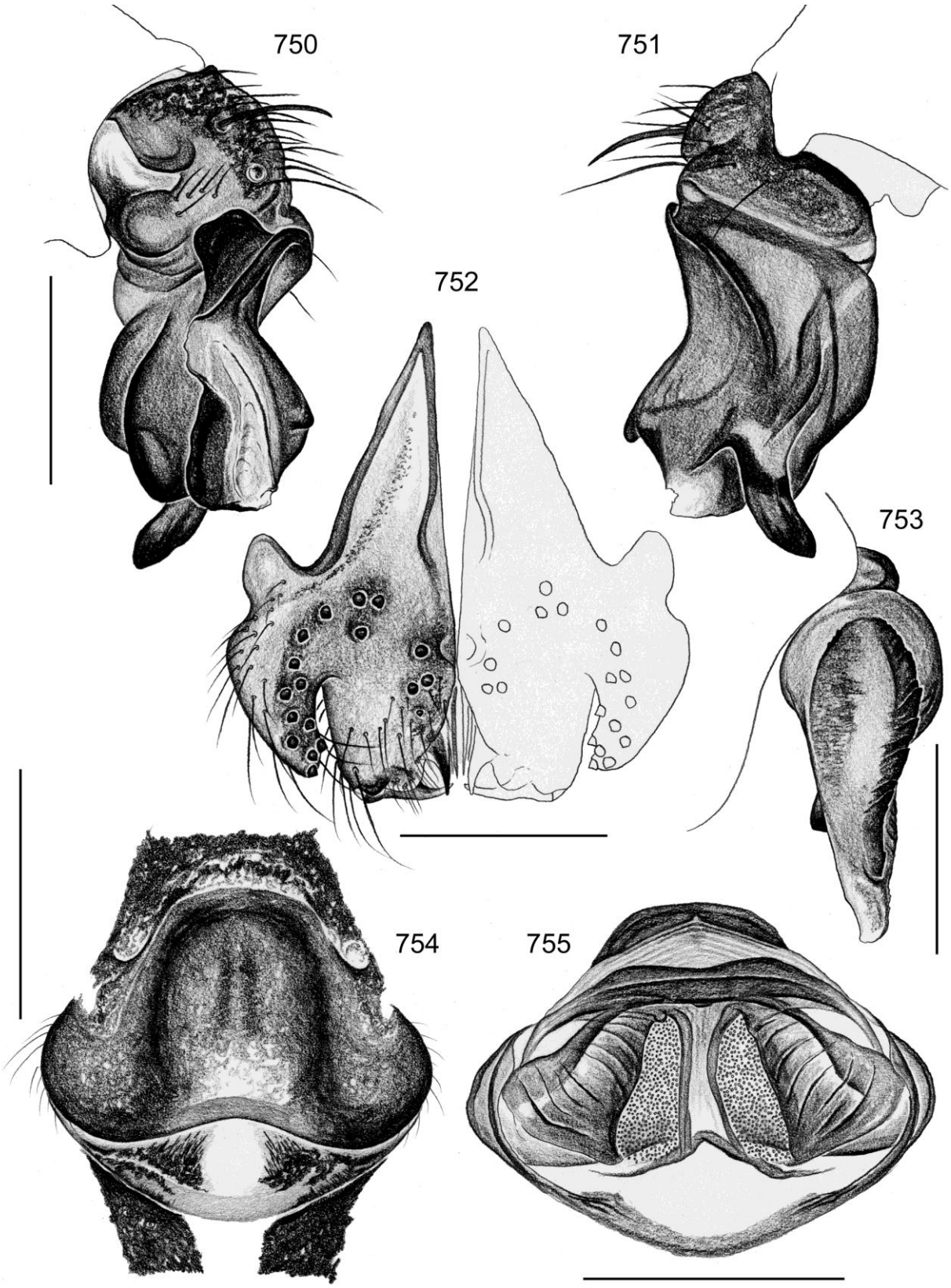
FIGURES 725-737. *Smeringopina ebolowa* n. sp. 725-726. Male prosoma, oblique frontal and fronto-dorsal views. 727. Left palpal trochanter and femur, ventral view; arrow points at ventral pocket. 728. Embolus; arrow points at sperm duct opening. 729. Left procursus and embolus, prolatero-distal view. 730. Macrotrichia and tarsal organ of left male palp. 731. Modified hairs on male clypeus. 732. Male chelicerae. 733. Tip of left male cheliceral apophysis. 734-735. Modified hairs on male chelicerae. 736. Male gonopore. 737. Epigynum, ventral view. Abbreviations: e: embolus; fe: femur; pr: procursus; tr: trochanter. Scale lines: 10 µm (735), 20 µm (734), 30 µm (731), 40 µm (733), 50 µm (736), 80 µm (730), 100 µm (727), 200 µm (728-729, 732), 300 µm (737), 400 µm (725-726).



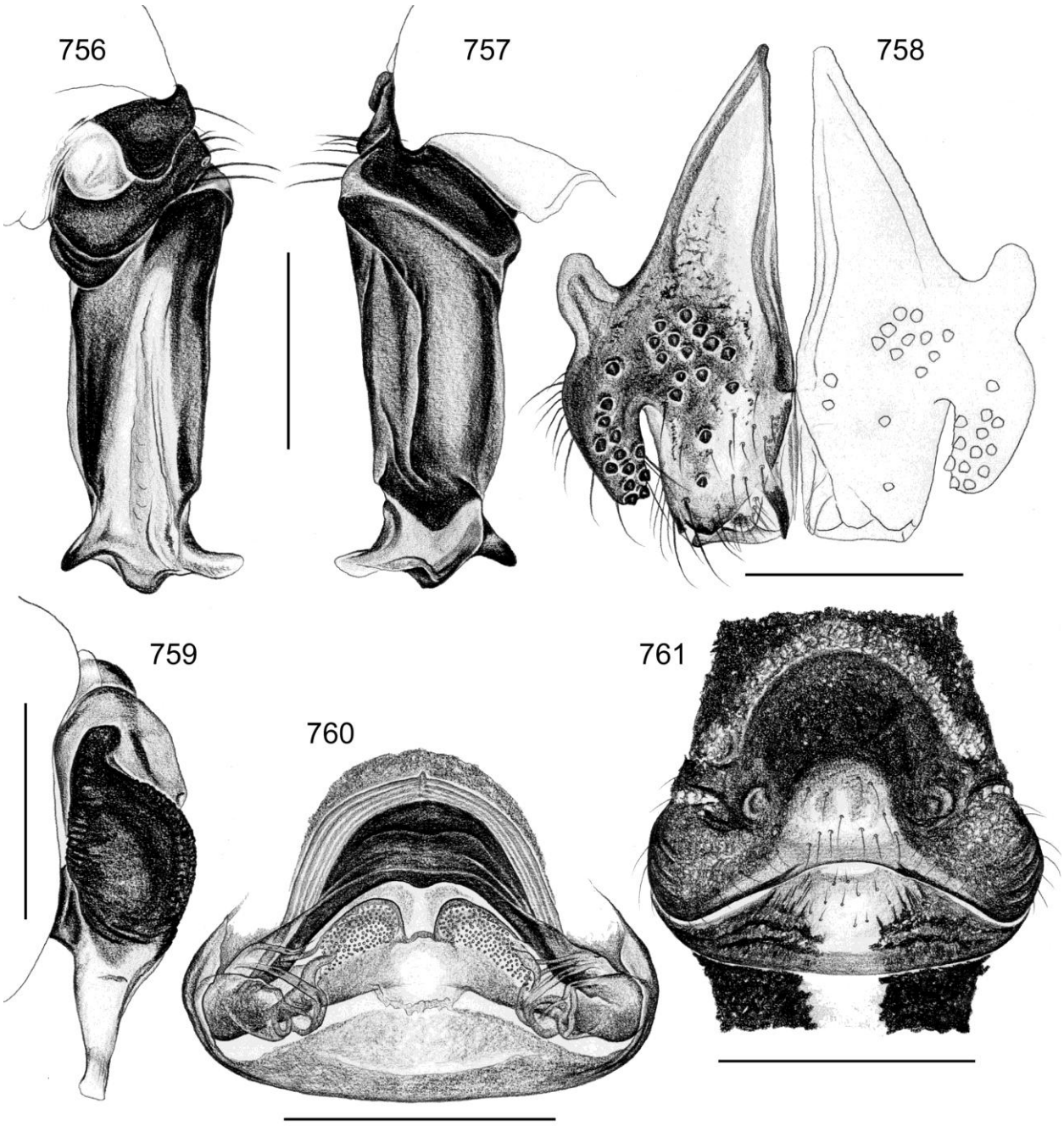
FIGURES 738-743. *Smeringopina essotah* n. sp. 738-739. Left procursus, prolateral and retrolateral views. 740. Male chelicerae, frontal view. 741. Left embolus, prolateral view. 742. Epigynum, ventral view. 743. Cleared female genitalia, dorsal view. Scale lines: 0.5 (738-741), 1.0 (742-743).



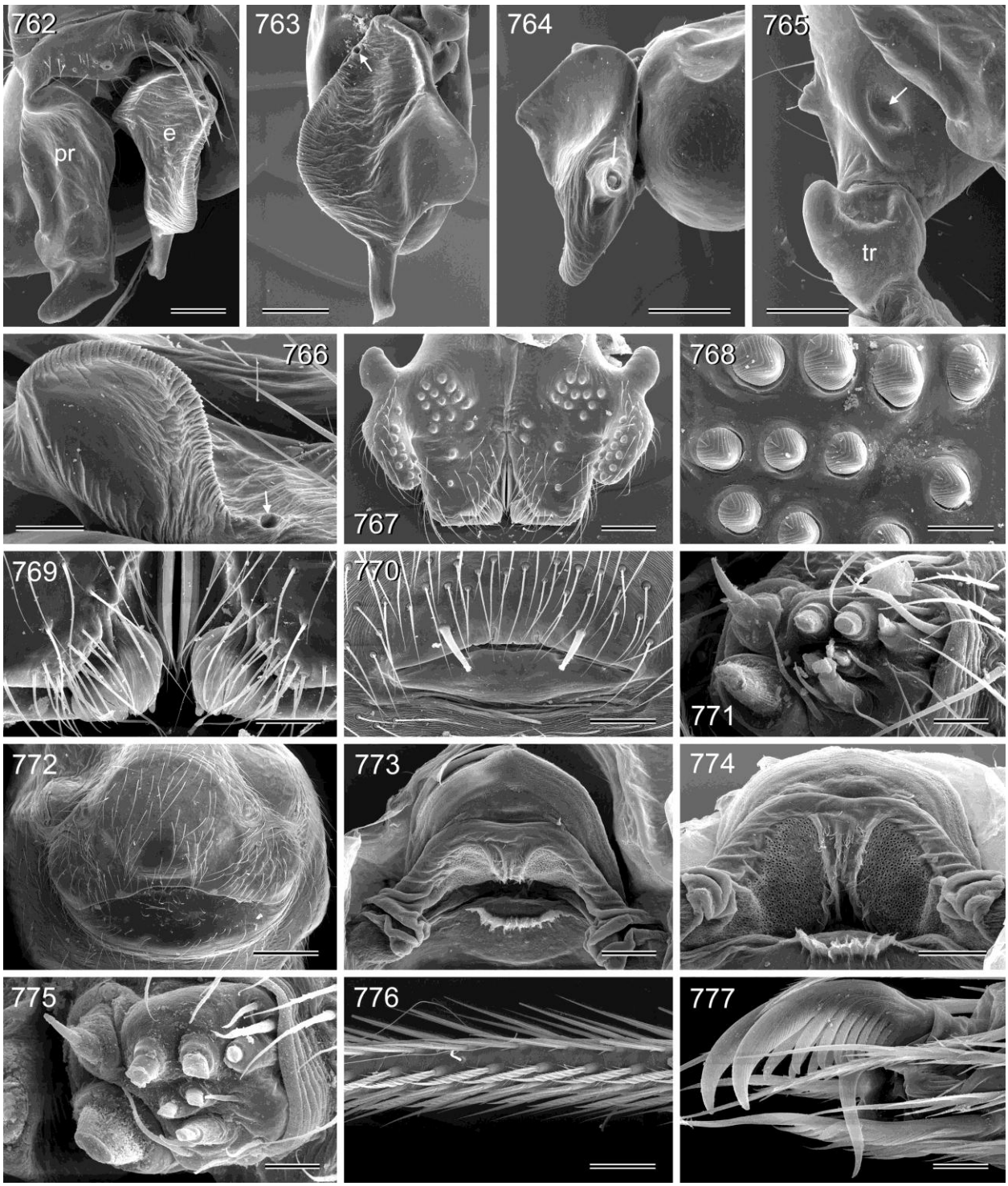
FIGURES 744-749. *Smeringopina mayebout* n. sp. 744-745. Left procursus, prolateral and retrolateral views. 746. Male chelicerae, frontal view. 747. Left embolus, prolateral view. 748. Epigynum, ventral view. 749. Cleared female genitalia, dorsal view. Scale lines: 0.5.



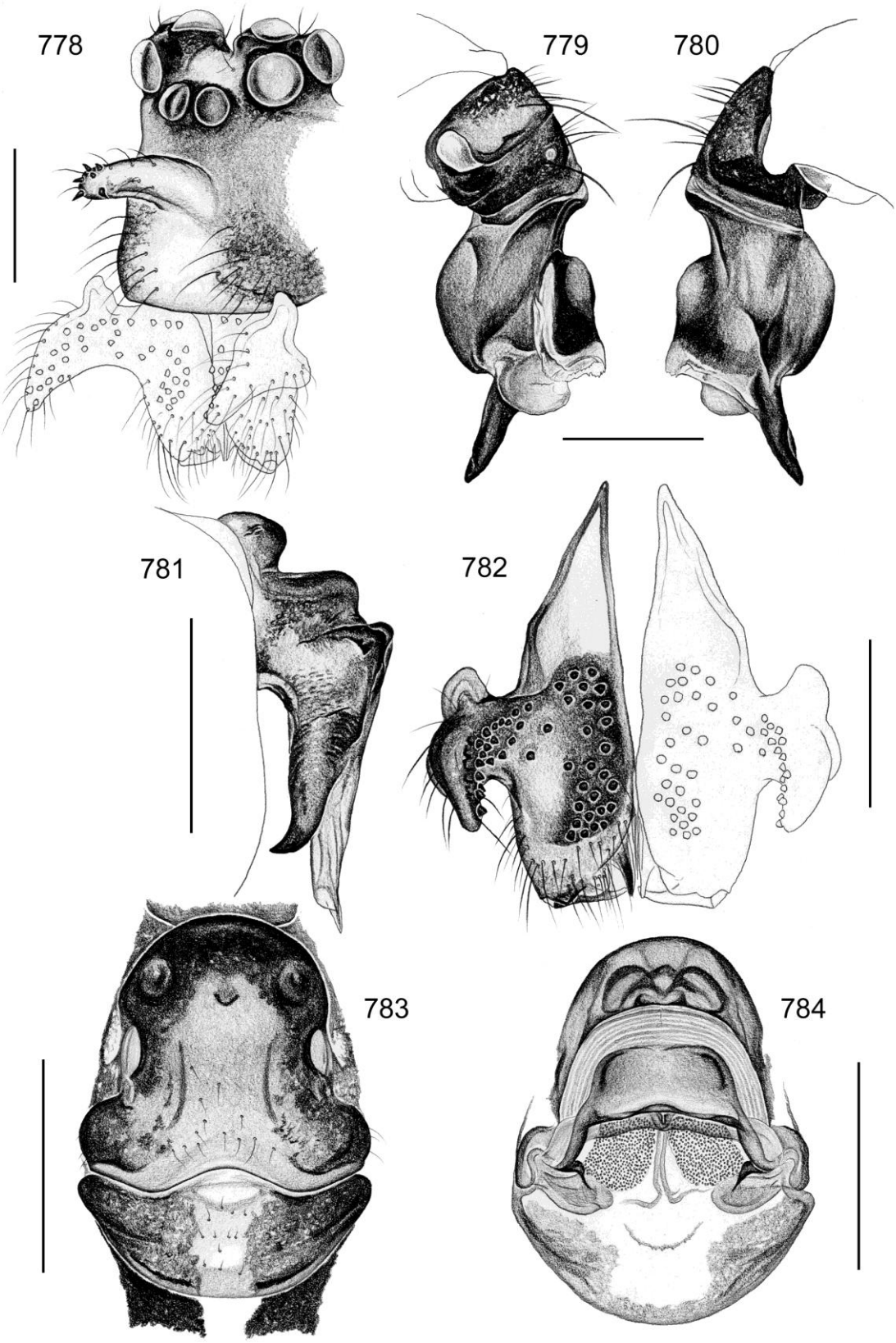
FIGURES 750-755. *Smeringopina simintang* n. sp. 750-751. Left procursus, prolateral and retrolateral views. 752. Male chelicerae, frontal view. 753. Left embolus, prolateral (slightly dorsal) view. 754. Epigynum, ventral view. 755. Cleared female genitalia, dorsal view. Scale lines: 0.5 (750-753), 1.0 (754-755).



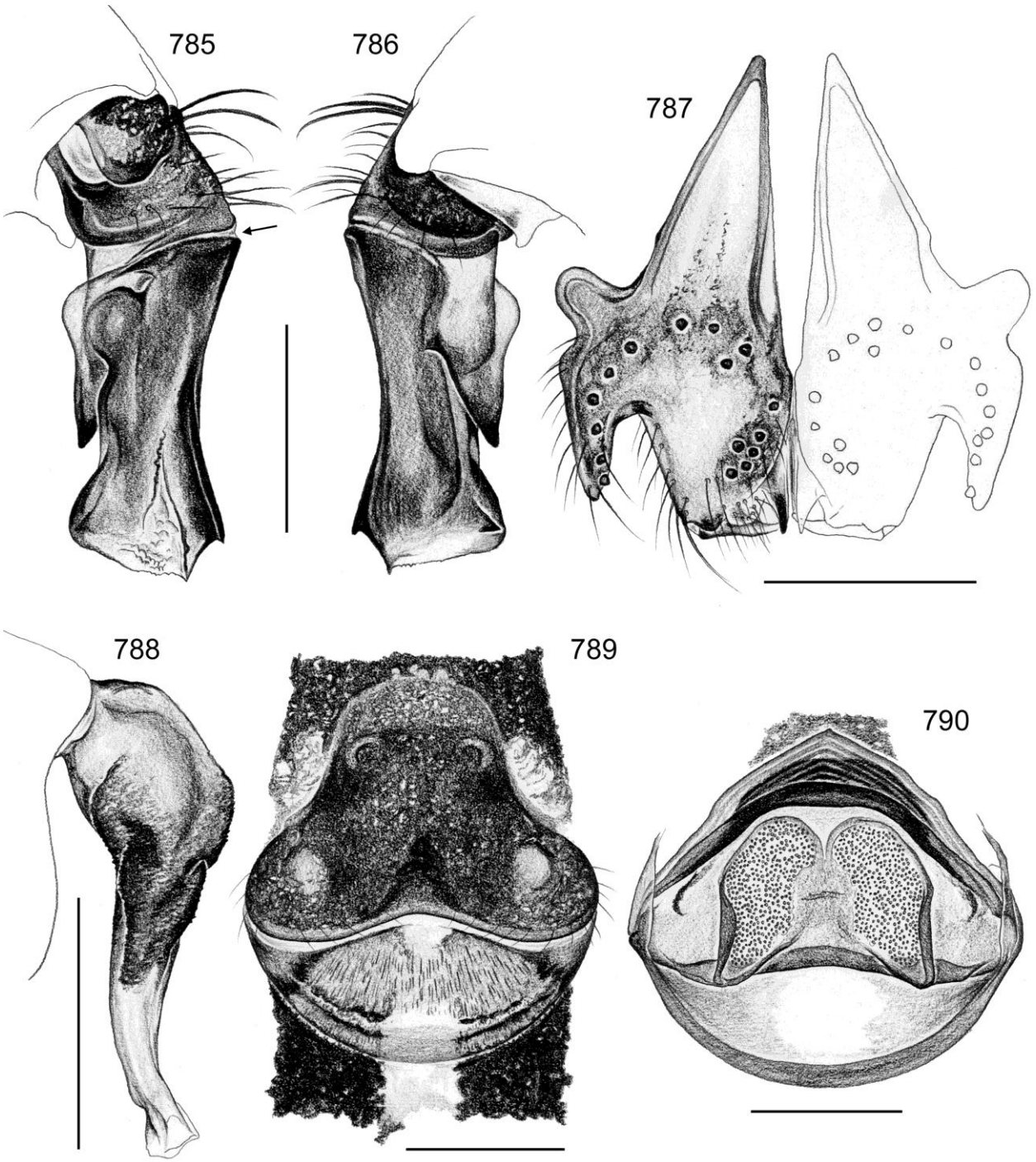
FIGURES 756-761. *Smeringopina belinga* n. sp. 756-757. Left procursus, prolateral and retrolateral views. 758. Male chelicerae, frontal view. 759. Left embolus, prolateral view. 760. Cleared female genitalia, dorsal view. 761. Epigynum, ventral view. Scale lines: 0.5 (756-759), 1.0 (760-761).



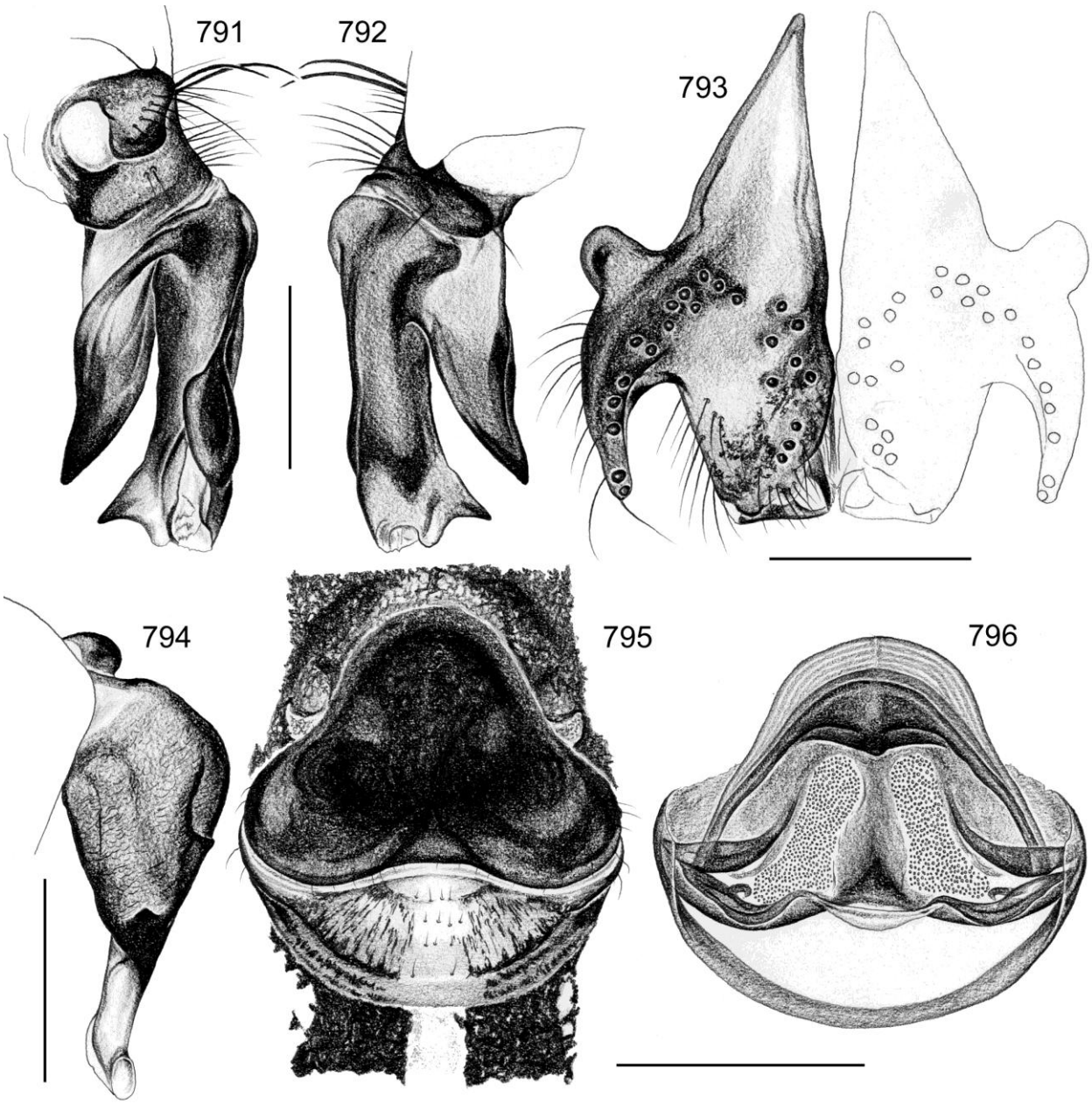
FIGURES 762-777. *Smeringopina belinga* n. sp. 762. Right procursus and embolus, dorsal view. 763. Left embolus; arrow points at unidentified symmetrical structure. 764. Left bulb and embolus, distal view; arrow points at sperm duct opening. 765. Right palpal trochanter and femur, ventral view; arrow points at ventral pocket. 766. Right embolus; arrow points at unidentified symmetrical structure. 767. Male chelicerae. 768. Modified hairs on male chelicerae. 769. Laminae of male chelicerae. 770. Male gonopore. 771. Male ALS. 772. Epigynum, ventral view. 773-774. Cleared female genitalia, dorsal and dorso-posterior views. 775. Female ALS. 776. Right tarsus 4, prolateral view. 777. Tip of left tarsus 4. Abbreviations: e: embolus; pr: procursus; tr: trochanter. Scale lines: 20 µm (771, 775, 777), 40 µm (768), 60 µm (769, 776), 80 µm (770), 100 µm (766), 200 µm (762-765, 767, 773-774), 400 µm (772).



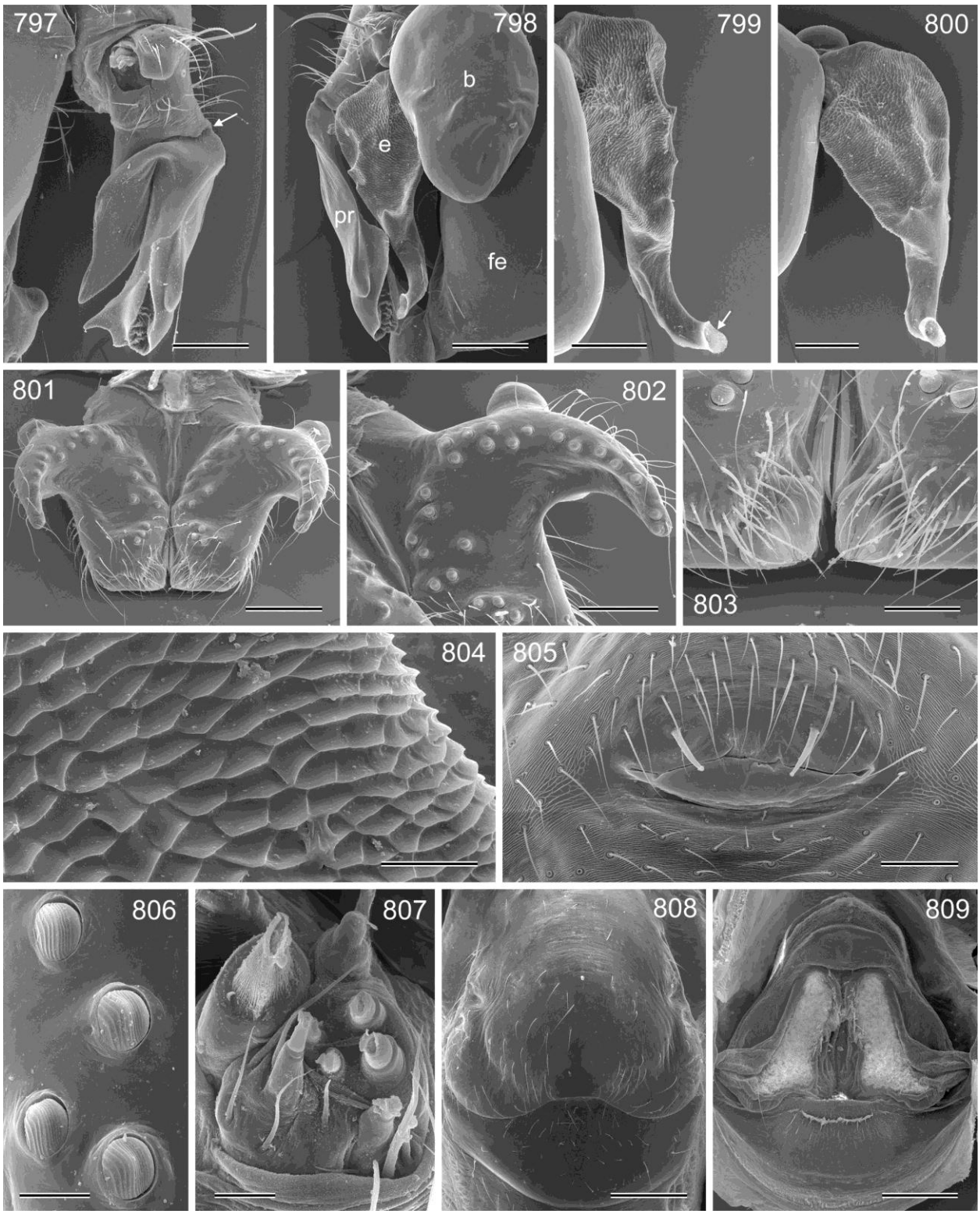
FIGURES 778-784. *Smeringopina beninensis* Kraus. 778. Male clypeus and ocular area, oblique frontal view. 779-780. Left procursus, prolateral and retrolateral views. 781. Left embolus, prolateral view. 782. Male chelicerae, frontal view. 783. Epigynum, ventral view. 784. Cleared female genitalia, dorsal view. Scale lines: 0.5 (778-782), 1.0 (783-784).



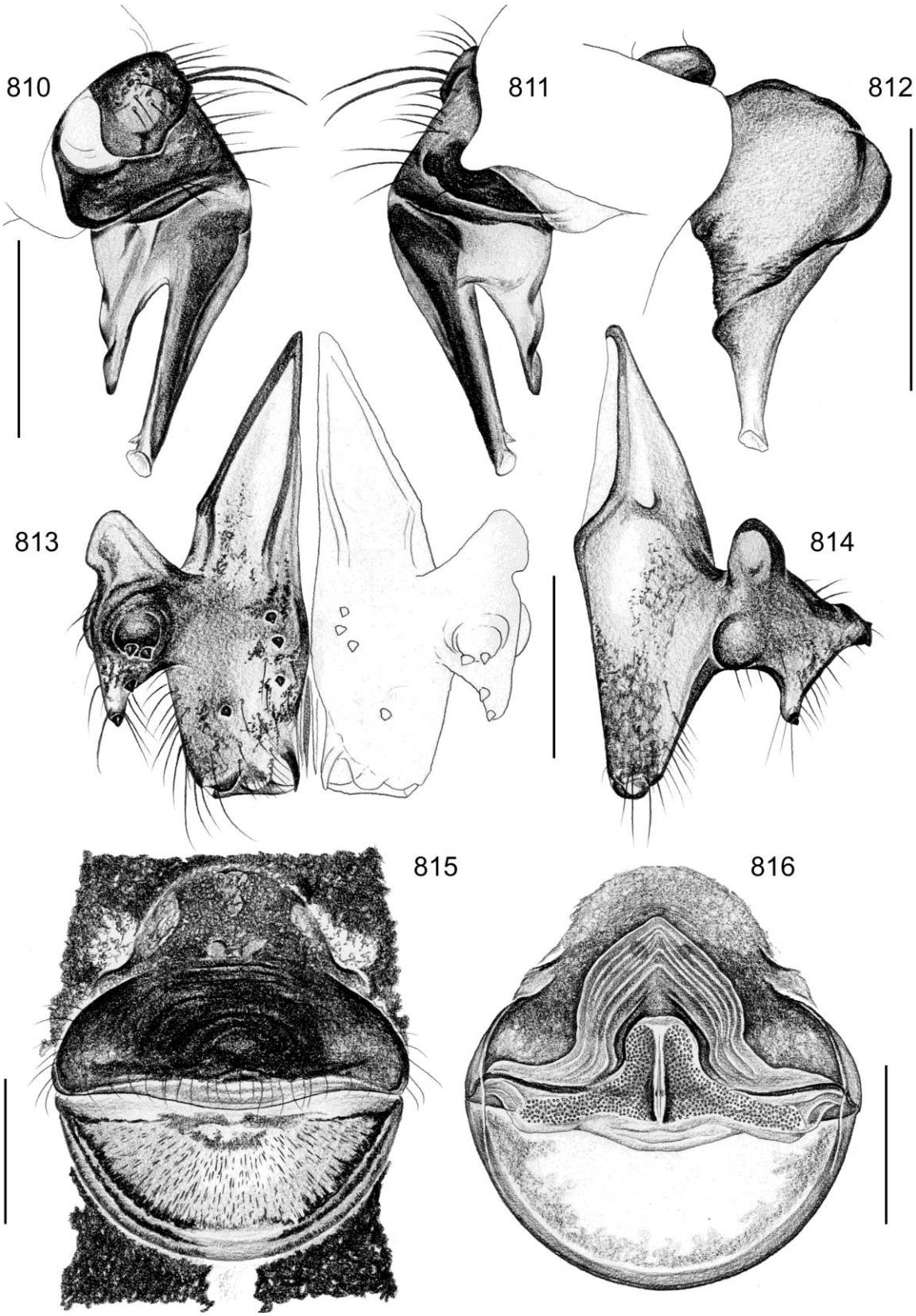
FIGURES 785-790. *Smeringopina kribi* n. sp. 785-786. Left procursus, prolateral and retrolateral views; arrow points at hinge. 787. Male chelicerae, frontal view. 788. Left embolus, prolateral view. 789. Epigynum, ventral view. 790. Cleared female genitalia, dorsal view. Scale lines: 0.5.



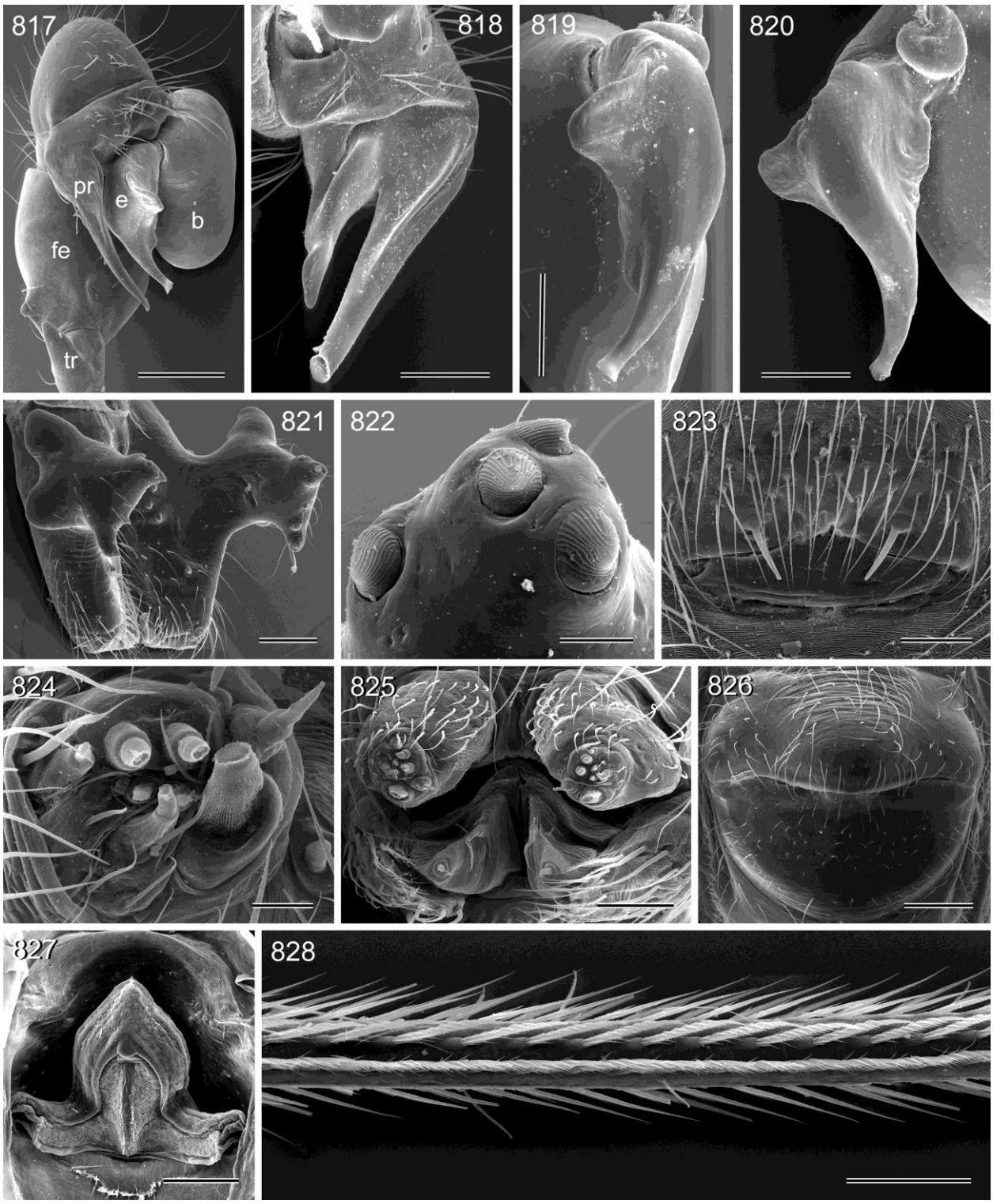
FIGURES 791-796. *Smeringopina sahoue* n. sp. 791-792. Left procursus, prolateral and retrolateral views. 793. Male chelicerae, frontal view. 794. Left embolus, prolateral view. 795. Epigynum, ventral view. 796. Cleared female genitalia, dorsal view. Scale lines: 0.5 (791-794), 1.0 (795-796).



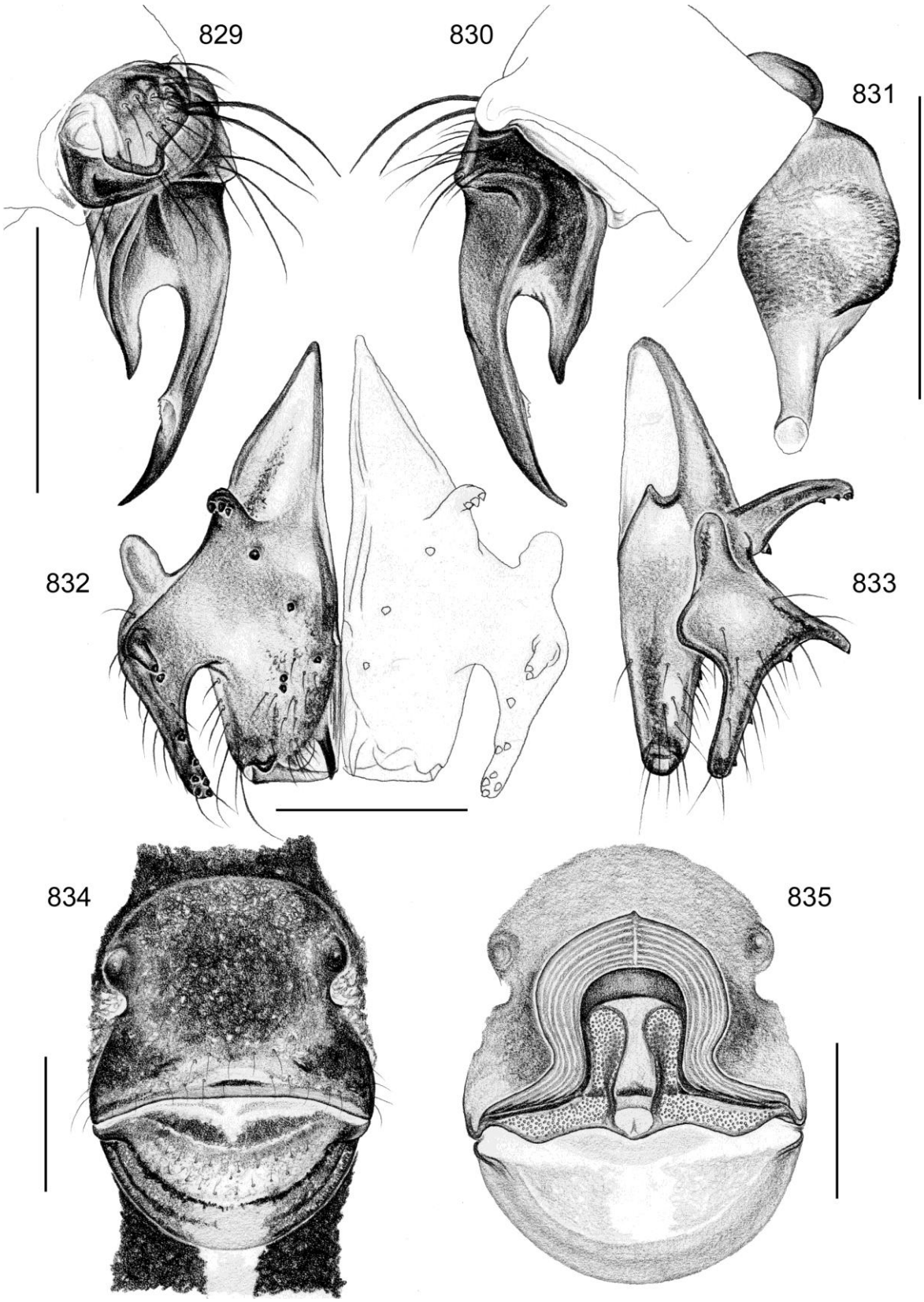
FIGURES 797-809. *Smeringopina sahoue* n. sp. 797. Left procursus, prolateral view; arrow points at hinge. 798. Right bulb and procursus, prolateral view. 799-800. Embolus; arrow points at sperm duct opening. 801. Male chelicerae. 802. Left male cheliceral apophysis. 803. Laminae of male chelicerae. 804. Scales on right embolus. 805. Male gonopore. 806. Modified hairs on male chelicerae. 807. Female ALS. 808. Epigynum, ventral view. 809. Cleared female genitalia, dorsal view. Abbreviations: b: bulb; e: embolus; fe: femur; pr: procursus. Scale lines: 20 µm (807), 30 µm (804, 806), 80 µm (803), 100 µm (805), 200 µm (799-800, 802), 300 µm (797-798, 801), 400 µm (808-809).



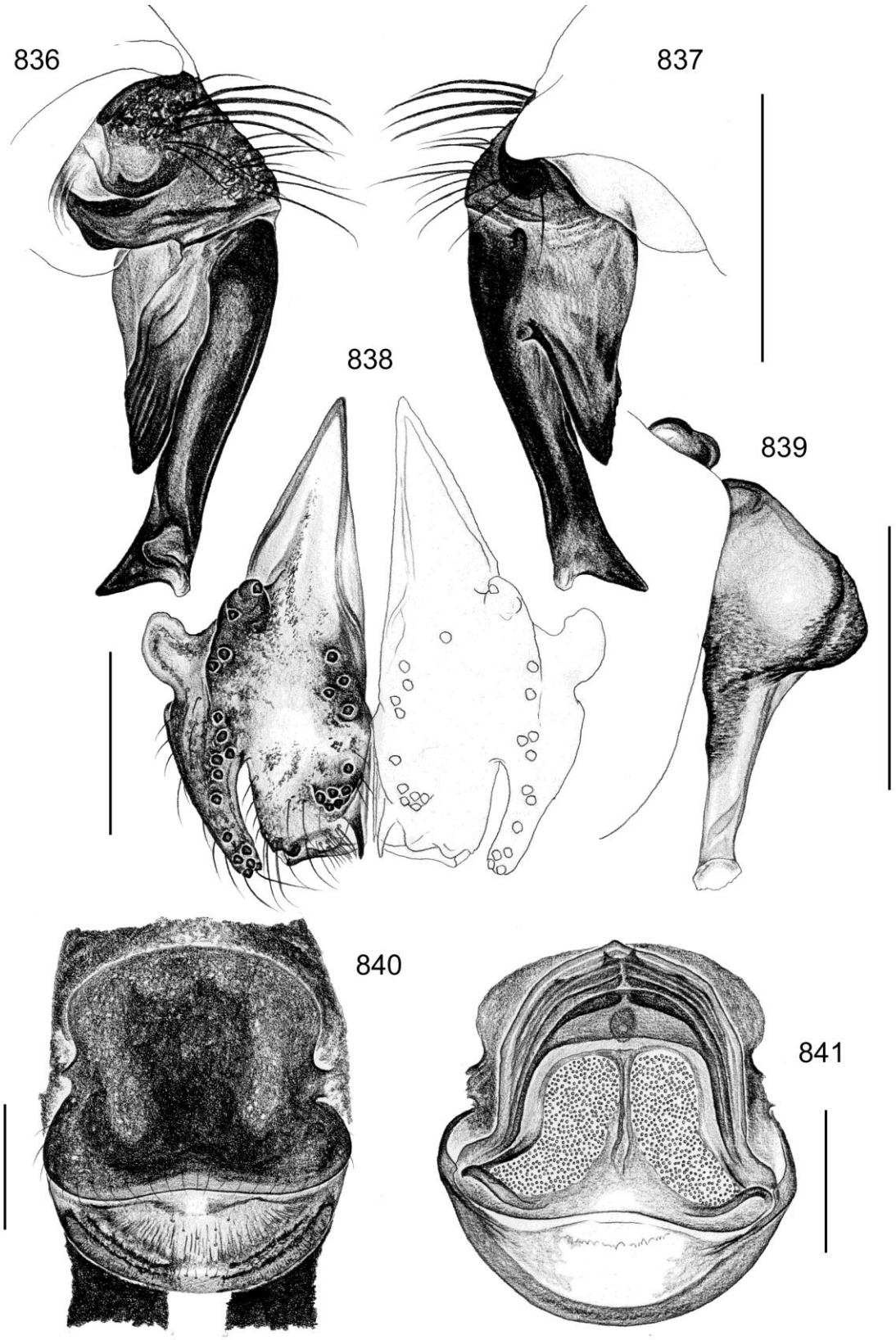
FIGURES 810-816. *Smeringopina tchimbele* n. sp. 810-811. Left procursus, prolateral and retrolateral views. 812. Left embolus, prolateral view. 813-814. Male chelicerae, frontal and lateral views. 815. Epigynum, ventral view. 816. Cleared female genitalia, dorsal view. Scale lines: 0.5.



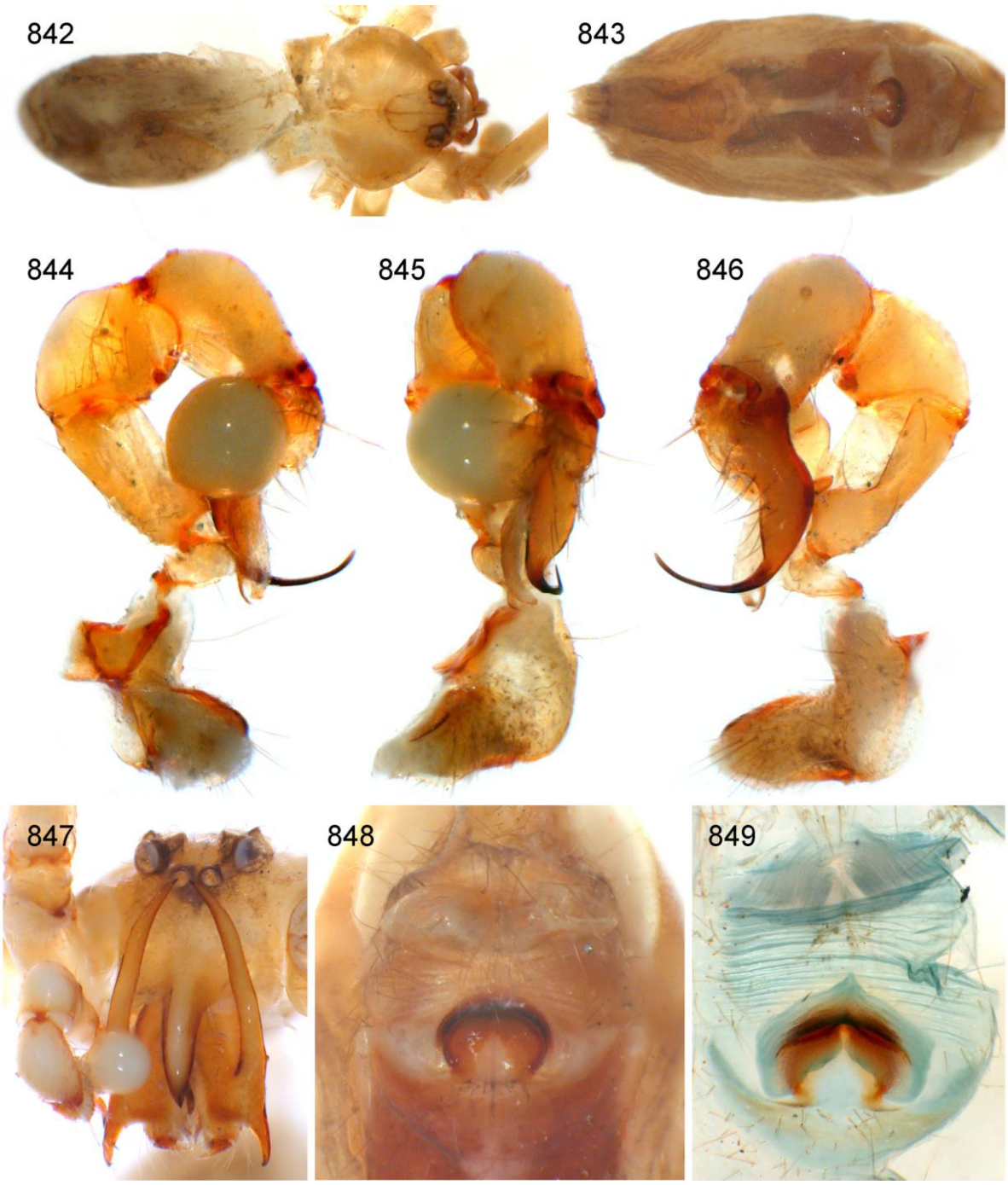
FIGURES 817-828. *Smeringopina tchimbele* n. sp. 817. Right palp, dorsal view. 818. Left procursus, prolateral view. 819-820. Embolus. 821. Male chelicerae. 822. Tip of left male cheliceral apophysis. 823. Male gonopore. 824. Male ALS. 825. Female spinnerets. 826. Epigynum, ventral view. 827. Cleared female genitalia, dorsal view. 828. Tarsus 4, ventral view. Abbreviations: b: bulb; e: embolus; fe: femur; pr: procursus; tr: trochanter. Scale lines: 20 µm (824), 30 µm (822), 80 µm (823), 100 µm (825, 828), 200 µm (818-821), 300 µm (826-827), 400 µm (817).



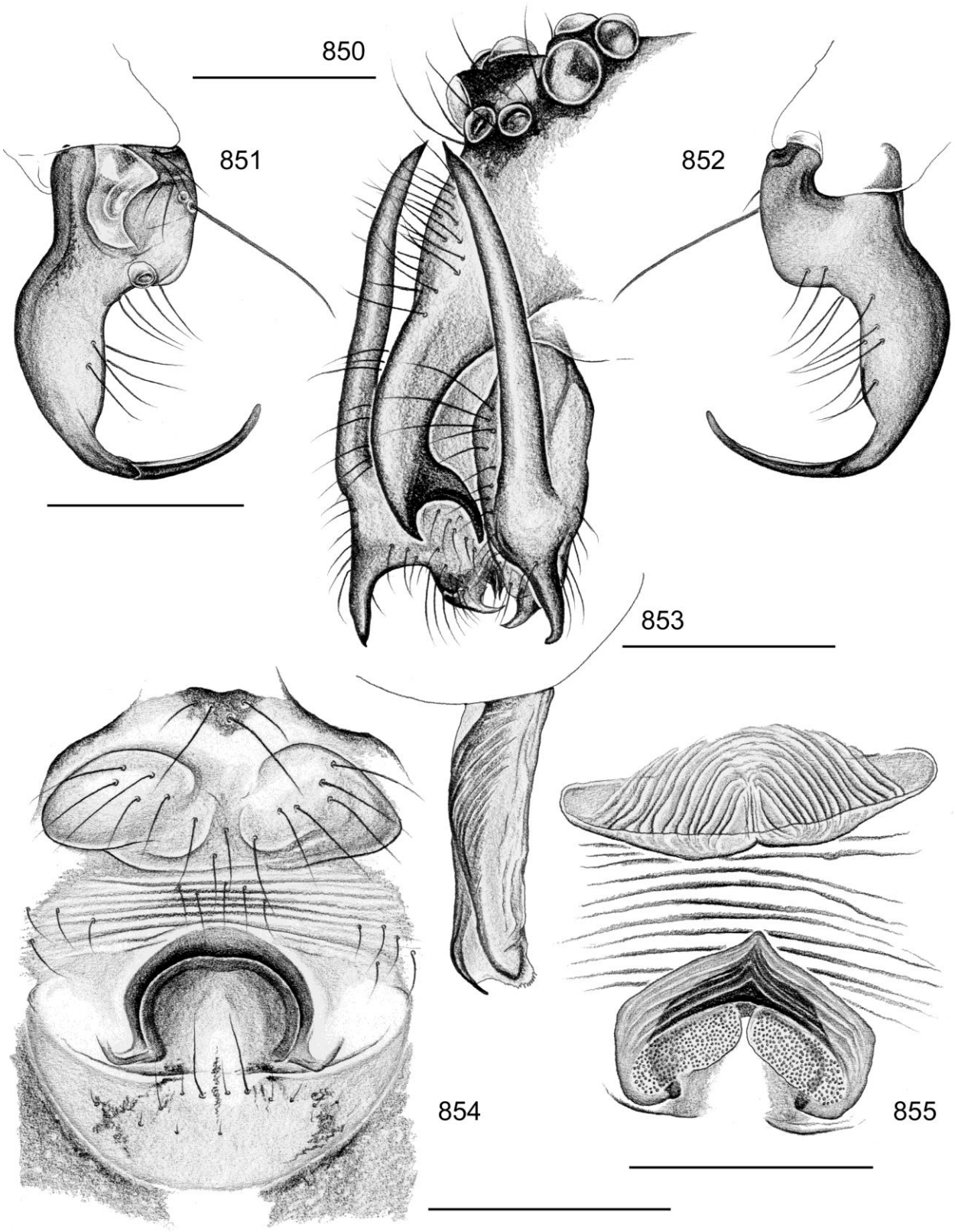
FIGURES 829-835. *Smeringopina bayaka* n. sp. 829-830. Left procursus, prolateral and retrolateral views. 831. Left embolus, prolateral view. 832-833. Male chelicerae, frontal and lateral views. 834. Epigynum, ventral view. 835. Cleared female genitalia, dorsal view. Scale lines: 0.5.



FIGURES 836-841. *Smeringopina chaillu* n. sp. 836-837. Left procursus, prolateral and retrolateral views. 838. Male chelicerae, frontal view. 839. Left embolus, prolateral view. 840. Epigynum, ventral view. 841. Cleared female genitalia, dorsal view. Scale lines: 0.5.



FIGURES 842-849. *Smeringopina ngungu* n. sp. 842. Male holotype, dorsal view. 843. Female abdomen, ventral view. 844-846. Left male palp, prolateral, dorsal, and retrolateral views. 847. Male prosoma and right palp, oblique frontal view. 848. Epigynum, ventral view. 849. Cleared female genitalia, dorsal view.



FIGURES 850-855. *Smeringopina ngungu* n. sp. 850. Male ocular area, clypeus and chelicerae, oblique frontal view. 851-852. Left procursus, prolateral and retrolateral views. 853. Left embolus, prolateral view. 854. Epigynum, ventral view. 855. Cleared female genitalia, dorsal view. Scale lines: 0.2 (853), 0.3 (851-852), 0.5 (850, 854-855).