

Two new species of *Anyphops* Benoit, 1968 and description of the male of *A. amatolae* (Lawrence, 1940) (Aranei: Selenopidae)

Два новых вида пауков рода *Anyphops* Benoit, 1968 и описание самца *A. amatolae* (Lawrence, 1940) (Aranei: Selenopidae)

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КЛЮЧЕВЫЕ СЛОВА: Aranei, Selenopidae, *Anyphops*, новые виды, самец *A. amatolae*, Афротропический регион.

ABSTRACT: Two new species of the genus *Anyphops* (Aranei: Selenopidae) are described and illustrated from Afrotropical region: *A. lochiel* sp.n. (from female only), *A. dulacen* sp.n. (from the male only) and the male of *A. amatolae* (Lawrence, 1940) is described and details of genitalic structures of the female are given and illustrated by the first time.

РЕЗЮМЕ: Дано иллюстрированное описание двух новых видов пауков рода *Anyphops* (Aranei: Selenopidae) из Афротропического региона: *A. lochiel* sp.n. (только самка), *A. dulacen* sp.n. (только самец). Также дано переописание самца и первописание самки *A. amatolae* (Lawrence, 1940).

Introduction

The family Selenopidae Simon, 1887 is represented by three genera (*Selenops* Latreille, 1819, *Anyphops* Benoit, 1968 and *Hovops* Benoit, 1968); and about 169 species and has a holotropical distribution pattern.

At present *Anyphops* is represented by 59 species from Afrotropical Region [Corronca, 1998 and Dippenaar-Schoeman & Jocqué, 1997]. *Anyphops* represents a heterogeneous group of flat spiders characterized by Benoit [1968] by the number of paired macrosetae disposed ventrally on tibiae I and II and metatarsi I and II, by the position of eyes and the shape of female and male genitalia [Corronca, 1996]. According with Benoit [1968] this genus can be divided into 4 major species group characterized by the presence of 4, 5, 6 or 7 pairs of ventral macrosetae on tibiae I–II.

In recent paper by Corronca [1998] on geographic distribution of *Anyphops* species from Cameroon, Zaire, Kenya, Namibia, Tanzania, Mozambique, South Africa and Madagascar, the percentage (77 %) of endemism was reduced to 42 %. Fifty of the 59 species are recorded only from South Africa with more than 30 % of them

known only from their type locality and the majority from only one sex.

About four years ago, I began to revise afrotropical selenopids. The objective of this paper is to describe two new species of *Anyphops*, *A. lochiel* sp.n. and *A. dulacen* sp.n. The male of *A. amatolae* (Lawrence, 1940) is described and details of genitalic structures of the female are given and illustrated by the first time.

Material and methods

Specimens used during the study were made available by the following institutions: SAM — South African Museum, Cape Town, South Africa; NCA — National Collection of Arachnida, Pretoria, South Africa and TM — Transvaal Museum, Pretoria, South Africa.

Palpi and epigyna were dissected and clarified in lactic acid (90 %) for 15 to 20 minutes in a double boiler and mounted separately on an excavated glass slide, in lactic acid or lactophenol. Study of the genitalia ducts was made as in Sierwald [1989]. The male palps were described using the terminology of Coddington [1990]. The female genitalia were described as in Sierwald [1989]. New species were identified on basis of genital characters. Measurements are in millimeters and the format of abbreviations used follows Platnick and Shadab [1975].

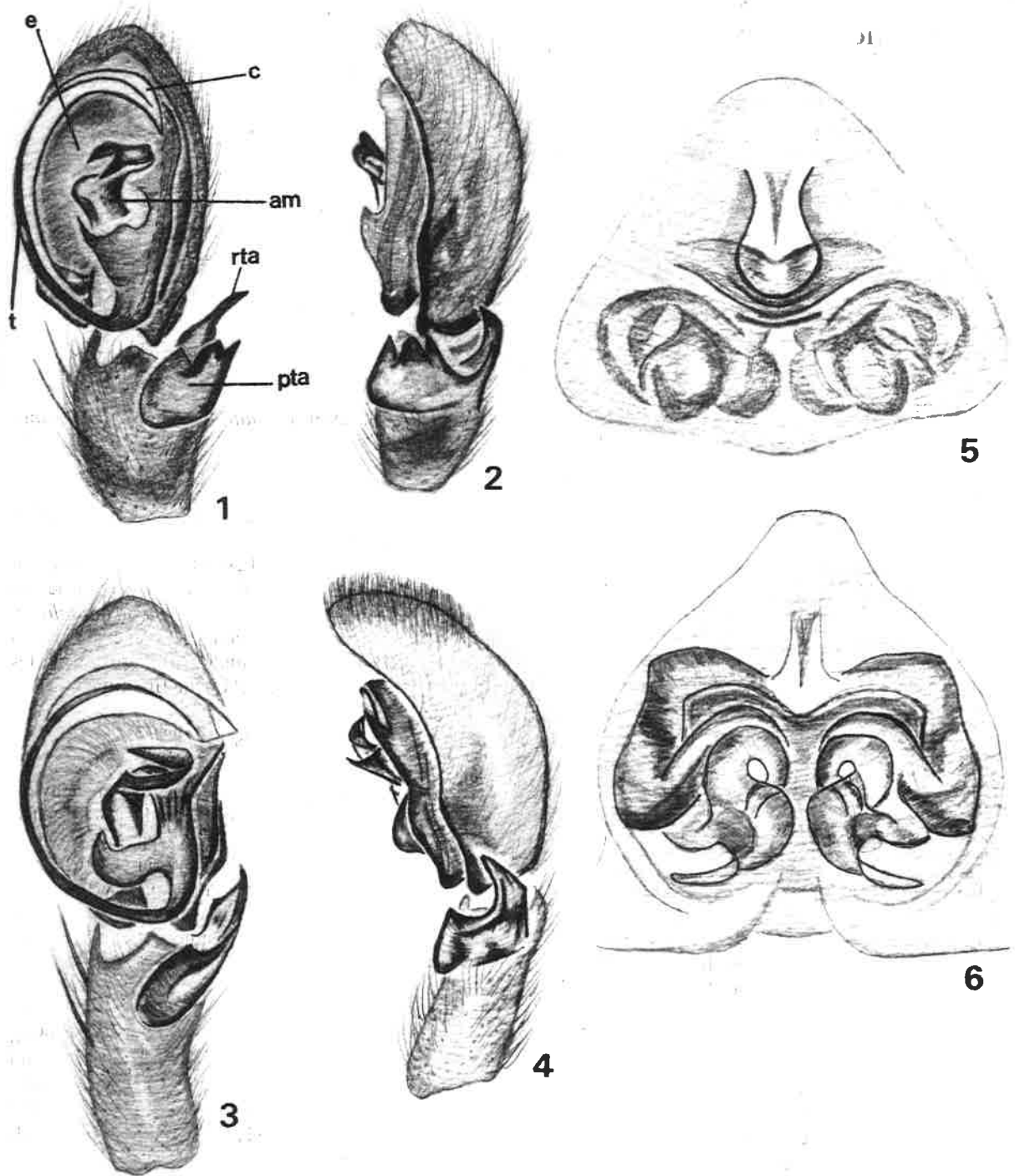
Anyphops dulacen sp.n.

Figs 1–2.

TYPE. Male holotype from SE of Kaika, NW Bechuana, Namibia, 24/11/61, W. Haecker col., in TM 9087.

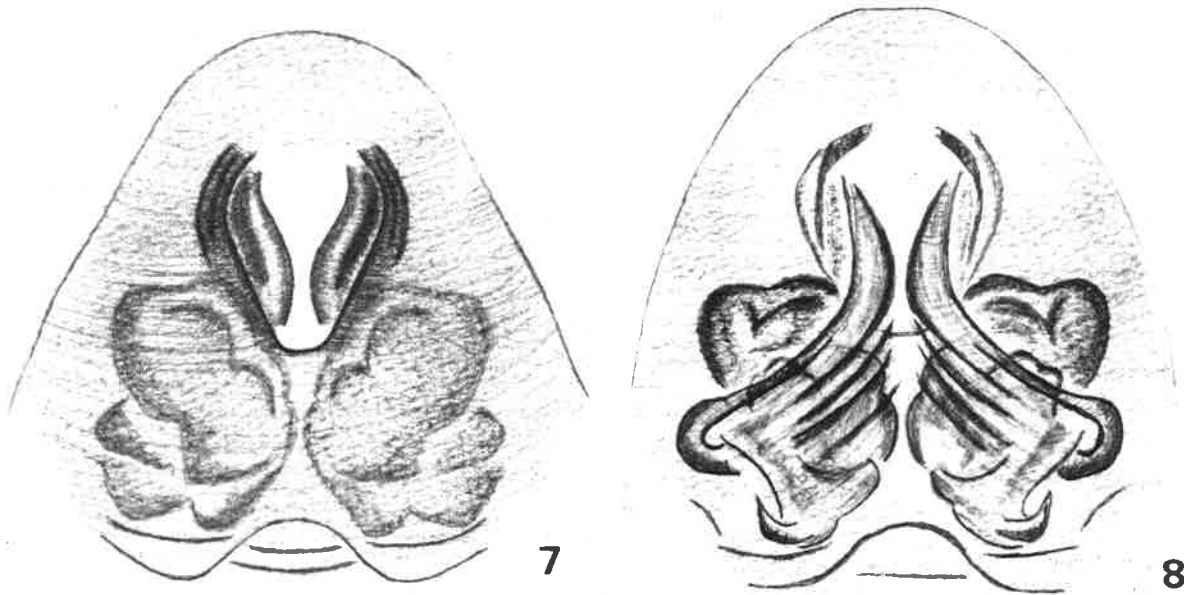
ETYMOLOGY. The specific name is an arbitrary combination of letters.

DIAGNOSIS. *A. dulacen* sp.n. belongs to species groups with 5 paired of ventral macrosetae on tibiae I–II (= sub-group B2 [Lawrence, 1940]). This new species shares with *A. hewitti* (Lawrence, 1940) the presence of a prolateral tibial apophysis



Figs 1-6. *Anyphops dulacen* sp.n. (1-2) and *A. amatolae* (Lawrence) (3-6): 1, 3 — left palp, ventral view; 2, 4 — left palp, detail of tibial and median apophysis; 5 — epigynum, ventral view; 6 — vulva. Abbreviations: am — median apophysis; c — conductor; e — embolus; pta — prolateral tibial apophysis; rta — retrolateral tibial apophysis; t — tegulum.

Рис. 1-2. *Anyphops dulacen* sp.n. (1-2) и *A. amatolae* (Lawrence) (3-6): 1, 3 — левый палец, вентрально; 2, 4 — левый палец, детали строения выроста голени и срединного выроста; 5 — эпигина, вентрально; 6 — вульва. Сокращения: am — срединный вырост; c — кондуктор; e — эмболюс; pta — пролатеральный вырост голени; rta — ретролатеральный вырост голени; t — тегулум.



Figs 7-8. *Anyphops lochiel* sp.n.: 7 — epigynum, ventral view; 8 — vulva.
Рис. 7-8. *Anyphops lochiel* sp.n.: 7 — эпигина, вентрально; 8 — вульва.

with three branches (Figs 1-2). These branches are short and slender in *A. hewitti* than in *A. dulaceni* and retrolateral tibial apophysis is different in form and longer than the prolateral one in the new species. Tibia of the pedipalp of *A. dulaceni* is short than the tarsi (Fig. 2), although it is little longer than tarsi in *A. hewitti*.

HOLOTYPE. Total length 7.00. Carapace 3.10 long, 3.30 wide. Eyes and interdistances: AME 0.22, ALE 0.14, PME 0.22, PLE 0.26, AME-AME 0.12, AME-ALE 0.44, AME-PME 0.08, PME-PME 0.66, PME-PLE 0.34, PLE-PLE 1.54, ALE-ALE 1.45. Abdomen 3.70 long, 3.30 wide. Leg formula 4321. Leg lengths: I — femur 4.30, patella + tibia 5.20, metatarsus 3.50, tarsus 1.30, total 14.30, II — 4.80, 5.70, 3.90, 1.40, total 15.80; III — 4.80, 5.50, 4.00, 1.40, total 15.70; IV — 4.70, 5.40, 4.40, 1.60, total 16.10. Leg spination: femur I-IV p1-1-0, d1-1-1, r0-2-1; patella I-IV d0-1; tibia I v2-2-2-2-2, II p-1-0-0, v2-2-2-2-2, III-IV d0-0-1, v2-2-0; metatarsus I-II v2-2-2, III-IV v2-2-0. Carapace brown with lateral margins dark gray and with small and diffuse spots on dorsal portion along carapace grooves. Chelicerae brown with gray reticulate pattern. Femora I-IV with a prolateral band in all of its length and with three dorsal diffuse pale gray bands. Tibiae, metatarsi and tarsi yellow-gray. Abdomen, yellow-gray with a longitudinal dorsal middle yellow band reaching to the middle portion of the abdomen. Distal portion of the abdomen with a well marked pale yellow band around the spinnerets. Laterals of the abdomen with small dark gray points. Palp of the male as in Figs 1-2.

FEMALE. Unknown.

MATERIAL EXAMINED. Only the type.

Anyphops amatolae (Lawrence, 1940)

Figs. 3-6.

TYPE. Female holotype from Hogsback, Amatola Mts, Cape Province, in SAM 2416 (examined).

DIAGNOSIS. *Anyphops amatolae* belongs to species groups with 6 paired of ventral macrosetae on tibiae I-II (= sub-group B3 [Lawrence, 1940]). Female of this species shares with *A. montanus* (Lawrence, 1940) and *A. tuckeri* (Lawrence, 1940) the form of the middle fields of the epigynum (Fig. 5), but in *A. amatolae* it is more elongated and less wide. The spermathecae form is very different from all those species of its species group and genus. Tibial apophysis of the male seems to *A. gilli* (Lawrence, 1940), but differ by the presence of a tooth on external margin of retrolateral tibial apophysis; by the length and form of median apophysis and wide distal portion of the conductor (Fig. 4).

DESCRIPTION OF THE MALE of the same holotype locality, in SAM B8285: Total length 9.90. Carapace 4.70 long, 5.20 wide. Eye sizes and interdistances: AME 0.23, ALE 0.18, PME 0.30, PLE 0.35, AME-AME 0.30, AME-ALE 0.58, AME-PME 0.13, PME-PME 0.88, PME-PLE 0.48, PLE-PLE 2.10, ALE-ALE 1.95. Abdomen 5.10 long, 3.80 wide. Leg formula 1243. Leg lengths: I — femur 7.50, patella + tibia 10.30, metatarsus 7.20, tarsus 2.60, total 27.60, II — 8.00, 9.90, 7.20, 2.10, total 27.20; III — 6.60, 8.10, 5.90, 2.10, total 22.70; IV — 7.40, 8.00, 6.90, 2.20, total 24.50. Leg spination: femur I p1-1-0, d1-1-1, r1-1-0; II p1-1-0, d1-1-1, r0-1-1; III p-1-1-0, d1-1-1, r1-1-1; IV p1-0-0, d1-1-1, r0-1-1; tibia I-II v2-2-2-2-2-2; III-IV v2-2-0; metatarsus I-II v2-2-2, III v2-2-0, IV v1-1-0. Carapace reddish-brown with dark gray lateral margins. More elongated red-brown chelicerae. Legs pale yellow. Femora I-IV with three diffuse pale gray dorsal bands and with a longitudinal prolateral gray band in femora I-II, too. Abdomen yellowish with a white transversal band in distal portion of the abdomen limited by a wide gray band. Rest of abdomen with a great amount of pale gray points. Palp of male as in Figs 3-4.

FEMALE HOLOTYPE. Described by Lawrence [1940]. Characters not mentioned in original description: Leg spination: femur I p1-1-0, d1-1-1, r1-1-0; II p1-0-0, d1-1-1, r1-1-

0; III p-1-0-0, d1-1-1, r1-1-1; IV d1-1-1, r0-0-1; tibia I-II v2-2-2-2-2-2; III v2-2-2, IV v1-0-0, r1-0-0; metatarsus I-II v2-2-2, III v2-2-0, IV v2-1-0. Coloration more dark than described by the male.

OTHER MATERIAL EXAMINED. SOUTH AFRICA: Cape Province, Hogsback, feb. 1933, R.F. Lawrence col., male and female, in SAM B8285.

DISTRIBUTION. Known only from Hogsback, Cape Province, South Africa.

Anyphops lochiel sp.n.

Figs. 7-8.

TYPE. Female holotype from Lochiel, Eastern Transvaal, South Africa, 12/11/1956, Martin col., in NCA 76/1862.

ETYMOLOGY. The specific name is a noun in apposition from the type locality.

DIAGNOSIS. *Anyphops lochiel* sp.n. belongs to species groups with 6 paired of ventral macrosetae on tibiae I-II (= sub-group B3 [Lawrence, 1940]). By the general form of the middle fields of the epigynum, *A. lochiel* seems closest to *A. kivuensis* Benoit, 1968 and *A. sponsae* (Lessert, 1933), but differs of them because it has not fused lateral lobes of the epigynum limited by a marked line. The particular form, more wide in anterior portion, of the middle fields of the epigynum, the general form of the copulatory ducts and swollen and lobed spermathecae (Figs 7-8), are very different of all *Anyphops* species.

HOLOTYPE. Total length 10.20. Carapace 4.50 long, 5.20 wide. Eyes sizes and interdistances: AME 0.20, ALE 0.18, PME 0.30, PLE 0.45, AME-AME 0.21, AME-ALE 0.58, AME-PME 0.13, PME-PME 0.75, PME-PLE 0.48, PLE-PLE 1.98, ALE-ALE 1.73. Abdomen 5.80 long, 4.70 wide. Leg formula: 2314. Leg lengths: I—femur 4.90, patella +tibia 6.20, metatarsus 3.30, tarsus 1.70, total 16.10, II—5.40, 6.30, 3.70, 1.60, total 17.00; III—5.20, 6.30, 3.70, 1.60, total 16.80; IV—4.50, 5.30, 3.70, 1.40, total 14.90. Leg spination: femur I-IV p1-1-1, d1-1-1, r1-1-1; tibia I-II v2-2-2-2-2-2, III v2-2-0, IV d1-1-0, v1-2-2-0; metatarsus I-II v2-2-2, III v2-0-2; IV r-1-1-0, v2-0-2. Carapace pale orange-brown. Chelicerae reddish-brown with a gray distal V-like band. Legs yellowish with gray spots. Femora I-II with two, proximal and middle, black prolateral spots. Femora III-IV with two, middle and proximal, incomplete and diffuse gray rings. Tibiae I-IV with two incomplete gray rings; metatarsi and tarsi I-IV dark red-brown. Abdomen yellowish with gray spots. Middle-dorsal portion of the abdomen with three paired

dark spots limiting a pale longitudinal and central area. Laterals of the abdomen with small gray points. Epigynum and spermathecae as in Figs 7-8.

MALE. Unknown.

OTHER MATERIAL EXAMINED. SOUTH AFRICA: Transvaal, Blouberg near Pietersburg, (29/5/1988, S. Naser col.), female, NCA 88/821.

DISTRIBUTION. Known only from Transvaal, South Africa.

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