

**A new species of the genus
Rhinoseius BAKER & YUNKER, 1964
(Acari: Mesostigmata: Ascidae)
found in Colombia including the description
of all developmental stages***

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Summary

A new species, Rhinoseius chocoensis (Acari: Ascidae), is described in all developmental stages. This species was found in the flowers of some Gesneriaceae (Scrophulariales) visited by hummingbirds in the Chocó region, Colombia. The significance of the chaetotaxy of the legs for separating subgroups within the genus Rhinoseius BAKER & YUNKER, 1964 is reviewed for all known species of the genus.

Key words: Ascidae, Rhinoseius, taxonomy, hummingbird flower mites, variability, Colombia.

Résumé

Une nouvelle espèce de Rhinoseius, Rh. chocoensis (Acari: Ascidae), est décrite d'après les formes adultes et tous les stades de développement. Cette espèce a été découverte dans les fleurs de certaines Gesneriaceae (Scrophulariales) visitées par les Colibris dans la Région de Chocó, Colombie. L'importance de la chaetotaxie des pattes comme caractère de séparation des sous-groupes du genre Rhinoseius est évaluée pour toutes les espèces du genre.

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Introduction

BAKER & YUNKER (1964) described eleven new species of ascid mites (Mesostigmata: Ascidae) within two new genera *Rhinoseius* BAKER & YUNKER, 1964 and *Tropicoseius* BAKER & YUNKER, 1964. LINDQUIST & EVANS (1965) synonymized both genera as *Rhinoseius* and placed it in the tribe *Melicharini* (Ascidae: Ascinae). All the mites described by BAKER & YUNKER (1964) were collected in Brazil, Colombia, Venezuela, Panama or Mexico from the nasal turbinates of hummingbirds (Aves: Trochilidae) or from cuttings of neotropical angiospermes, which were pollinated by hummingbirds. Further species of the genus *Rhinoseius* were found in the neotropics, i.e. in Cuba (DUSBABEK & CERNY, 1970) and Costa Rica (HUNTER, 1972). FAIN *et al.* (1977) were the first who reported not only new species of the genus *Rhinoseius* but also described four new species of the genus *Proctolaelaps* BERLESE, 1923 (Ascinae: Melicharini *sensu* LINDQUIST & EVANS, 1965) and one new species of the genus *Lasioseius* BERLESE, 1916 (Ascinae: Blattisociini *sensu* LINDQUIST & EVANS, 1965), which obviously were all phoretic in the nasal cavities of hummingbirds. The first ecological work with mites of the genus *Rhinoseius* was conducted by COLWELL (1973; see also recent review of the ecology of these mites in COLWELL & NAEEM, 1994). Mites living in hummingbird-pollinated flowers and using hummingbirds for phoretic purpose were termed by the author 'Hummingbird Flower Mites' (COLWELL, 1979).

Additional species of the genus *Rhinoseius* were described by HYLAND *et al.* (1978), COLWELL & NAEEM (1979), FAIN & HYLAND (1980), MICHERDZINSKY & LUKOSCHUS (1980), OHMER *et al.* (1991) and WIESE & FAIN (1993) (see also FLECHTMANN & JOHNSTON, 1978; LUZ ZAMUNIDO, 1985). FAIN (1992) revised all 34 known species of the genus *Rhinoseius* and divided them into three groups: 'tiptoni', 'ornatus' and 'wetmorei' (see also FAIN *et al.* 1977b). Additional species of Hummingbird Flower Mites were found for the genus *Proctolaelaps* by HYLAND *et al.* (1978) and OCONNOR *et al.* (1991) and for the genus *Lasioseius* by NAEEM *et al.* (1985) and OHMER *et al.* (1991).

Today 40 species of the genus *Rhinoseius* are known: 11 species for the group 'tiptoni' (nine of them reported for Colombia), 8 species for the group 'ornatus' (five of them reported for Colombia) and 21 species for the group 'wetmorei' (ten of them reported for Colombia) (FAIN, 1992; see also WIESE & FAIN, 1993).

The main characters to divide these groups within the genus *Rhinoseius* are for both sexes those of tectum, type of dorsal shield, rows of denticles on coxa I, for males the number of blunt ventral spines on tarsus II & III and for females the character of inseminating organs (FAIN *et al.*, 1977b; FAIN, 1992). WIESE & FAIN (1993) assumed that also the number of setae on tibiae III and IV may be significant to separate at least two groups.

Juvenile stages were described only for four species within the genus *Rhinoseius*. These species are *Rh. richardsoni* HUNTER, 1972, *Rh. colwelli* HUNTER, 1972, *Rh. rafinskii* MICHERDZINSKI & LUKOSCHUS, 1980 and *Rh.*

bakeri DUSBABEK & CERNY, 1970 (for the last species see description of juvenile stages in FAIN & SMILEY, 1995).

Material and methods

For the chaetotaxy of the idiosomal setae we follow LINDQUIST & EVANS (1965). The leg chaetotaxy is described according to EVANS (1963). The nomenclature of the other morphological characters follows FAIN (1992). All measurements are given in micrometers. Measurements are given for all known types of the species. If not contrarily advised lengths and widths of idiosoma and shields are the maximum measurements for each specimen.

All material listed in FAIN (1992) and WIESE & FAIN (1993) was available for this study. Further some paratypes of deuto- and protonymphs from *Rh. colwelli* were available.

In the description of the adult stages the corresponding measurements for the female respectively for three male specimens of *Rh. colwelli* are given between brackets [] in the first position, the corresponding measurements for the female respectively for the male specimens of *Rh. ornatus* FAIN & HYLAND (1980) are given in second position. In the descriptions of deuto- and protonymphs for *Rh. chocoensis* sp. n. all corresponding measurements for the available paratypes of *Rh. colwelli* are also given between brackets.

Corresponding measurements were made on the following specimens:

- The female holotype of *Rh. colwelli* HUNTER, 1972.
- Three male paratypes of *Rh. colwelli*, one homeomorphic found in a flower of *Centropogon grandidentatus* var. *valerii* (STRANDL.), Cerro de la Muerte, Costa Rica, 2.IV.1969.
and two heteromorphic, one of them with the same data as the homeomorphic and one collected from *Centropogon gutierrezii* (PLANCH. & OERST.) in the same locality with the same date.
- Four deutonymphs of *Rh. colwelli*, three from the flowers of *C. grandidentatus* and one from the flower of *C. gutierrezii* with the same data as given for the adults.
- Two protonymphs of *Rh. colwelli*, collected from *Eugenes fulgens spectabilis* (Aves: Trochilidae) in the same locality on 2.IV.1969 and 10.IV.1969.
- The female holotype of *Rh. ornatus* FAIN & HYLAND, 1980 and 3 female paratypes, one of them with the same data as holotype and two of them found on the same individual of *Androdon aequatorialis* (Aves: Trochilidae) in Antioquia, Colombia on 21.VIII.1971.
- The male allotype of *Rh. ornatus* and one paratype with the same data as the allotype.

The holotype and allotypes of *Rh. chocoensis* sp. n. are deposited in the Institut royal des Sciences naturelles de Belgique (IRSNB). Paratypes are deposited in the same Institute and in the Alexander Koenig Zoological Research Institute and Zoological Museum (ZFMK), Bonn, Germany.

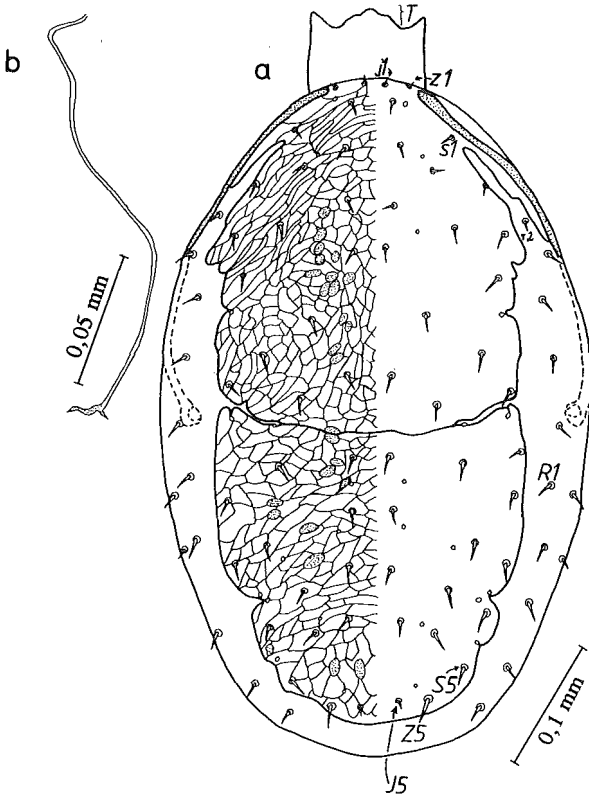


Fig. 1. *Rhinoseius chocoensis* sp. n. female in dorsal view (1a), inseminating organ (1b).
T = tectum.

Locality

The specimens were collected during August and September 1991 in Bajo Anchicayá (3°46'N/77°10'W) in the Dept. Valle del Cauca, Colombia at an altitude of 200 m above sea level. The locality was a South-Southeast exposed slope with secondary growth in the first year after cutting of a heavily and frequently disturbed secondary vegetation. Anchicayá is situated in the eastern part of the Chocó region (see FABER-LANGENDOEN & GENTRY, 1991; GENTRY, 1982, 1986, 1990; HILTY, 1980) on the western slope of the Cordillera Occidental.

Description of *Rhinoseius chocoensis* sp. n.

FEMALE (Figs 1-3) - Dorsal shield of holotype 496 long and 245 wide.
DORSUM - Length of dorsal shield varies between 470 and 554 [730; 582-

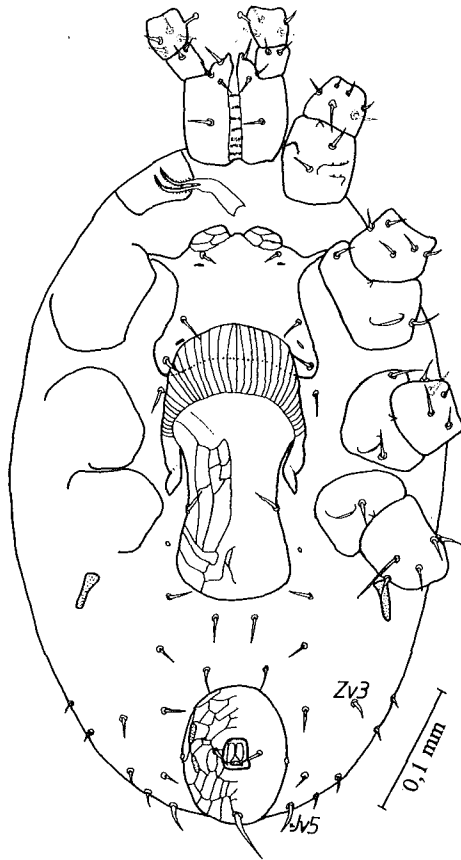


Fig. 2. *Rhinoseius chocoensis* sp. n. female in ventral view.

590], width between 230 and 276 [335; 322-328]. Dorsal shield of type C with lateral incisions and complete suture. Podonotal part of dorsal shield with 17 [17; 17] and opisthonotal part with 15 [15; 15] pairs of setae. Distinct striation present on whole dorsal shield. Length of setae *j1* 10 [11; 3-4] and of *z1* 6-10 [3; 5-6]. Length of setae *Z5* varies between 14 and 28 [22; 15-20]. Length of shortest setae of dorsal shield (except *j1*, *z1* or *J5*) 9-14 [8; 8], this setae are *s1* [*s1*; *s1*] as a rule. Longest setae of dorsal shield (except *Z5*) 14-20 [24; 13-15], this setae are *S4* [*S3* and *S4*; of *z*- or *Z*-row] as a rule. Peritreme ending near setae *z1* [*z1*; *z1*]. VENTER - Sternal shield anterior with two weak, striated sternal lobes. Anal shields are 98-118 [151; 107-114] long and 74-91 [105; 78-80] wide. Inseminating organ without distinct maturation pouch. Thin and membranous adductor canal 150 long at best, ending distally in a 20 μ m long and distinctly

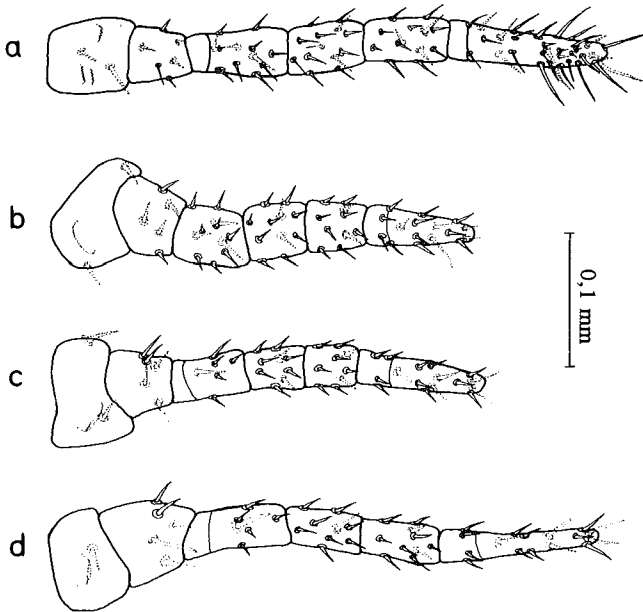


Fig. 3. *Rhinoseius chocoensis* sp. n. legs I to IV in the female (a, b, c, d).

sclerotized part. **LEGS** - Coxa I ventral with several rows of denticles. Tibia III bears 9 [9; 9] and tibia IV 10 [10; 10] setae. 2 [2; 2] setae present on the basitarsus I. The complete chaetotaxy of the legs is given below. **GNATHOSOMA** - Tectum rounded and 12-18 [26; 13] long. Deutosternum with 7 [7; 7] transverse rows of five to seven denticles each.

MALE (Figs 4-6 for heteromorphic allotype & Figs 7-9 for homeomorphic paratype) - Dorsal shield of heteromorphic allotype 561 long and 326 wide and of homeomorphic type 477 long and 290 wide. **DORSUM** - Dorsal shield with length of 428-561 [710-735; 509-516] and width of 224-326 [402-502; 315-335]. Dorsal shield of type C with lateral incisions and complete suture. Podonotal part of dorsal shield with 19 to 21 [17-21; 21] and opisthonotal part with 18 to 20 [15-20; 18] pairs of setae, depending on the position of the following setae: *r4*, *r5*, *R3* and *R4*. In all specimens setae *r2* and *r3* insert on podonotal part and setae *r6*, *R1* & *R2* on opisthonotal part of dorsal shield. Distinct striation present on whole dorsal shield. Setae *jl* 4-15 [12-39; 8-15], *z1* 3-10 [3-16; 7-9] and *r3* 16-61 [20-88; 17-26] long. Setae *Z5* exhibit with lengths between 14-280 [26-167; 20-24] an observed variation in length of factor 20, which is the most extensive variation of all idiosomal setae of 179 examined specimens. All intermediate forms with lengths of setae *Z5* between 14 and 280 were found (applied to intervals of ± 10 ; see Fig. 17). Peritreme ending near

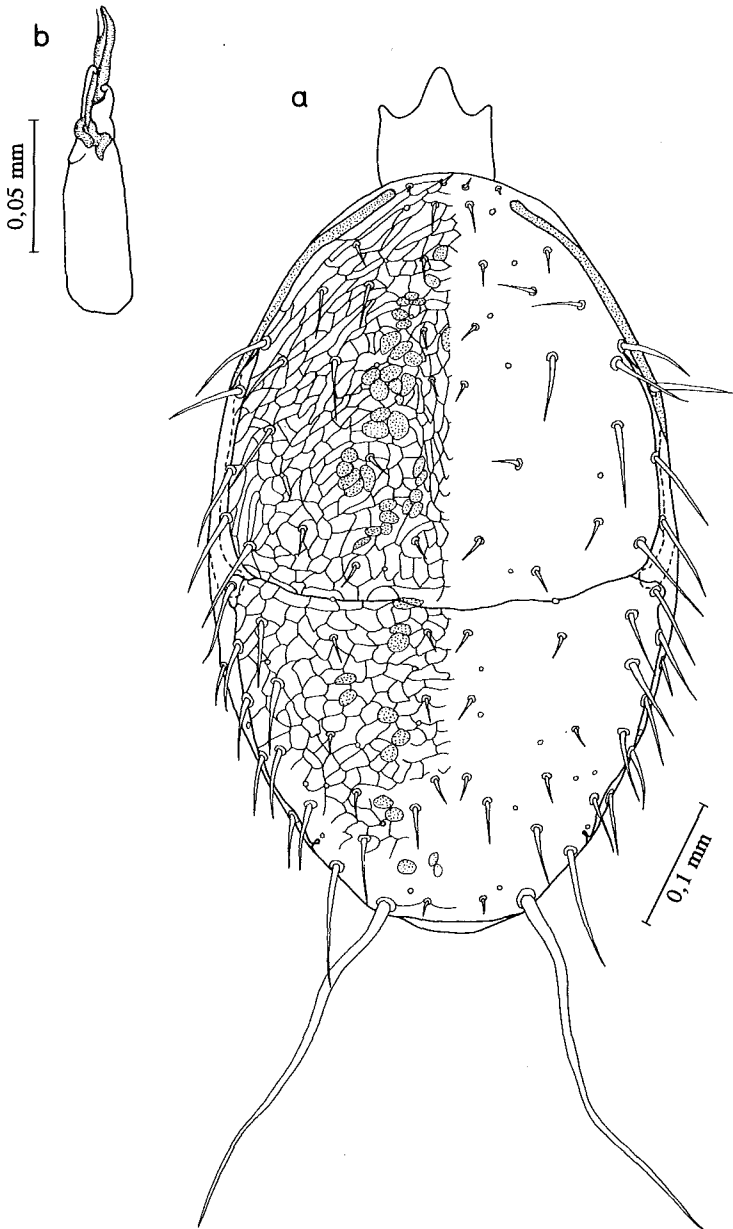


Fig. 4. *Rhinoseius chocoensis* sp. n. heteromorphic male in dorsal view (4a), spermatodactyl (4b).

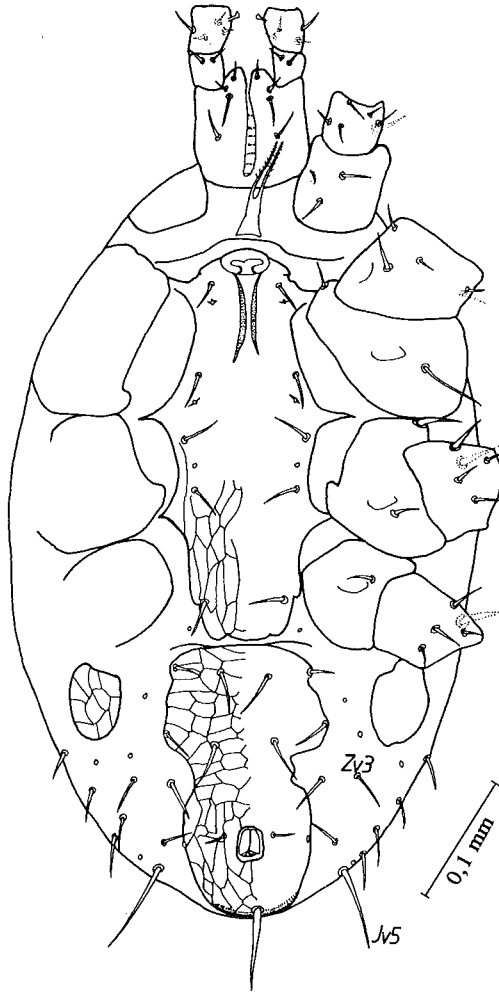


Fig. 5. *Rhinoseius choocoensis* sp. n. heteromorphic male in ventral view.

setae *z1* with a minimal distance of 58-170 [97-133; 59-83] between both peritremata. **VENTER** - No setae insert laterad to the posterior end of the sternal shield. Length of ventrianal shield 155-210 [306 in heteromorphic specimens, in homeomorphic specimens the ventrianal shield is fragmented in a distinct anal- and ventral shield; 175-162] and maximal width 90-140 [153; 105-111] near setae *Zv2*. The minimal preanal width of this shield is 45-93 [68; 68-73] near setae *Jv3*. **LEGS** - Coxa I with one ventral row of denticles. The general chaetotaxy of the legs is the same as in females. The number of conical spines are the following: one (*av*) for femur II and

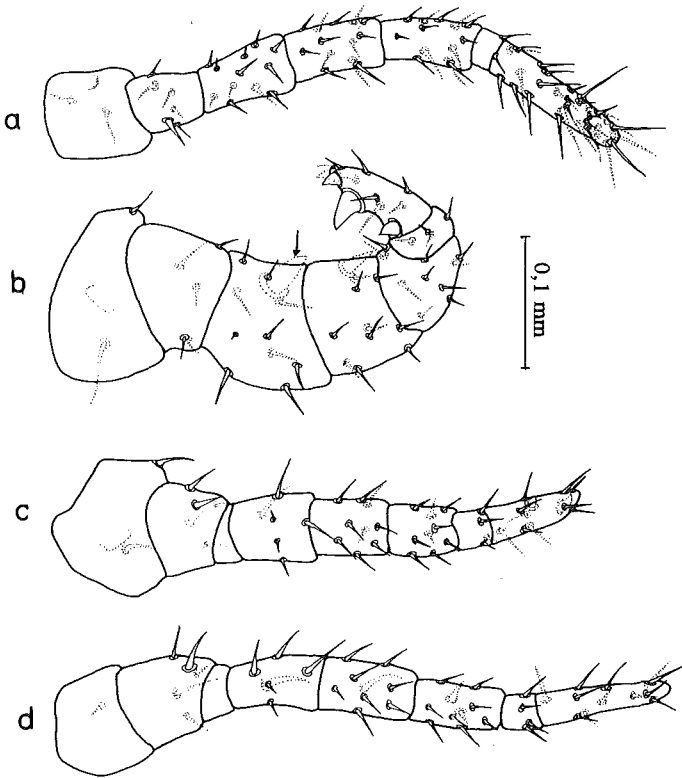


Fig. 6. *Rhinoseius chocoensis* sp. n. legs I to IV in the heteromorphic male (a, b, c, d). The seta *av* of leg II is marked.

genus II, two for tarsus III and four for tarsus II. No spinelike setae [one spine; no spine] can be observed on tibia II. The width of femur II is 46-125 [76-151; 71-77], the spine on this segment is 18-36 [31-43] long. The complete chaetotaxy of the legs is given below. GNATHOSOMA - Tectum rounded and 30-45 [54; 29-34] long. Spermatodactyl 57-62 [77-82; 66-68] long with an appendix of 13-15 [26-29; 13] long. Deutosternum with 7 [7; 7] transverse rows of five to seven denticles each.

DEUTONYMPH (Figs 10-12) - Podonotal shield of allotype 228 long and 212 wide, opisthonotal shield 168 long and 176 wide. DORSUM - Podonotal shield 205-247 [298-318] long, 178-225 [261-275] wide and with 13 [13] pairs of setae. Opisthonotal shield 153-189 [231-251] long, 163-215 [224-268] wide and with 15 [15] pairs of setae. Setae *z1* insert anterior to and setae *s1-s3* insert laterad to the podonotal shield. No setae of *r*- or *R*-row insert on a shield. Lengths of setae on podonotal shield are for the longest

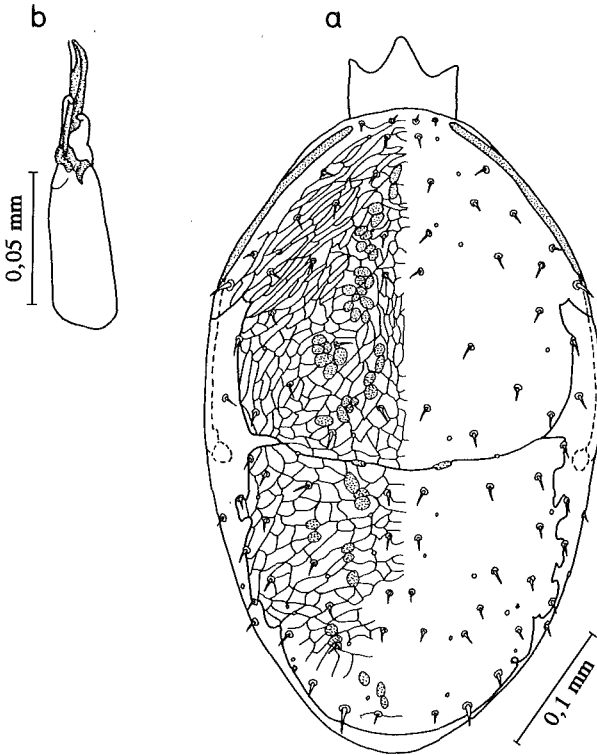


Fig. 7. *Rhinoseius chocoensis* sp. n. homeomorphic male in dorsal view (7a), spermatodactyl (7b).

setae 24-30 [67-70] and 9-14 [33-37] for the shortest setae aside from *j1*. Length of setae on opisthonotal shield is 16-24 [67] for the longest setae aside from *Z5* and 9-15 [33-40] for the shortest setae aside from *J5*. Setae *j1* are 3-11 [18-22], *j2* 14-22 [37-40], *z1* 6-12 [13-23] and *r3* 23-36 [58-61] long. Setae *Z5* are distinctly barbed and 40-61 [70-80] long. VENTER - Setae *Jv5* 12-35 [52-54] and *R6* to *R7* 12-20 [43-47] long. Anal shield 61-81 [90-101] long and 70-78 [87-90] wide. LEGS - Coxa I ventral with various rows of denticles. Tibia III bears 9 [9] and Tibia IV 10 [10] setae. 2 [2] setae present on the basitarsus I. Setae *av* on Femur II are 13-19 [20-24] long. The complete chaetotaxy of the legs is given below. GNATHOSOMA - Tectum rounded, 18 [27-34] long.

PROTONYMPH (Figs 13-14) - Podonotal shield of allotype 198 long and 161 wide, pygidial shield 64 long and 131 wide. **DORSUM** - Podonotal shield 174-211 [235-245] long and 142-167 [201-211] wide and bears 11 [11] pairs of setae. Pygidial shield 64-90 [77-91] long and 105-137 [151-161]

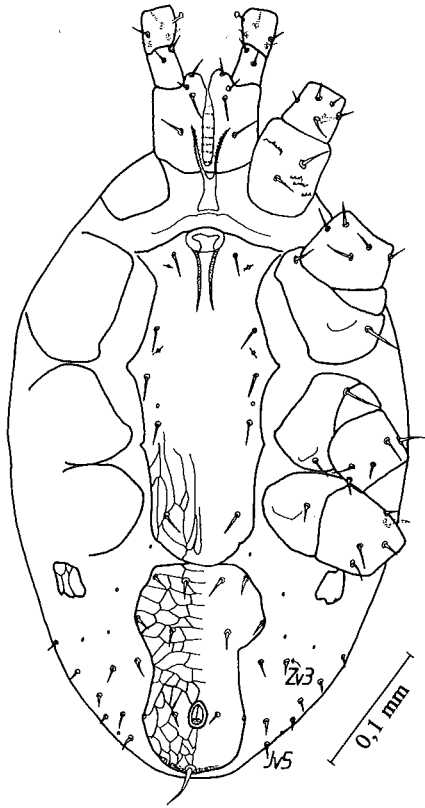


Fig. 8. *Rhinoseius chocoensis* sp. n. homeomorphic male in ventral view.

wide and bears 8 [8] pairs of setae of which at least 6 [1] pairs are barbed. Laterad to the podonotal shield 4 [4] pairs of setae insert on the membrane and 1 [1] pair inserts laterad to the pygidial shield. 11 [11] pairs of setae insert on the dorsal membrane: *r2*, *r3*, *r5*, *s6*, *R1*, *S2*, *S3*, *Z1*, *Z2*, *J1* and *J2*. Setae *j1* 6-13 and *Z5* 35-52 [51-53] long. On the podonotal shield the lengths of the shortest setae are 6-13 [24-26] aside from *j1*, and of the longest setae 20-37 [46-51]. On the pygidial shield the lengths of the shortest setae aside from *J5* are 12-26 [32-34] and the lengths of the longest setae aside from *Z5* are 26-35 [41-43]. On the dorsal membrane the lengths of the shortest setae are 9-24 [32] and those of the longest setae 28-37 [43-44]. Length of peritreme 33-55 [48-58], width 6-12 [10]. **VENTER** - Length of *Jv5* 12-18 [29]. Anal shield 40-55 [56-61] long and 43-62 wide [71-73]. Postanal setae 15-28 [32-34] long. **LEGS** - Coxa I ventral with rows of denticles. Tibia III and IV bear 7 [7] setae. The complete chaetotaxy of the legs is given below. **GNATHOSOMA** - Rounded tectum, not always visible, length 12 [not visible] at best.

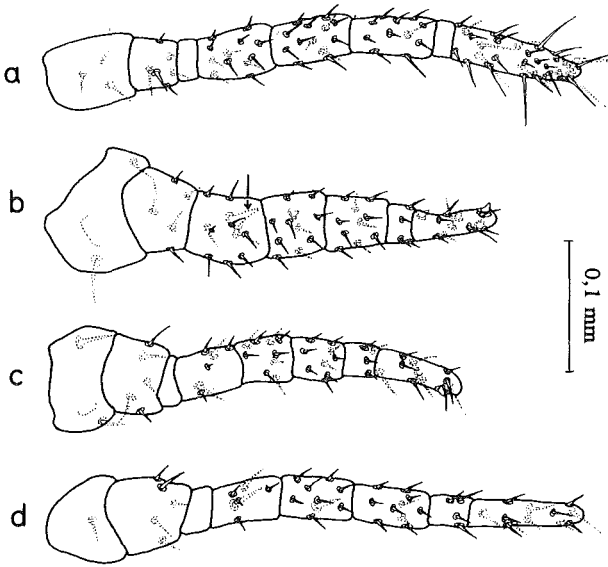


Fig. 9. *Rhinoseius chocoensis* sp. n. legs I to IV in the homeomorphic male (a, b, c, d). The seta *av* of leg II is marked.

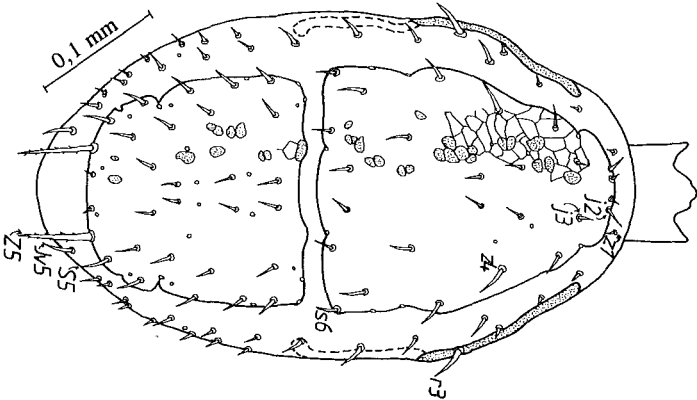


Fig. 10. *Rhinoseius chocoensis* sp. n. deutonymph in dorsal view.

LARVA (Figs 15-16) - Podonotal shield of allotype 185 long and 138 wide, pygidial shield 43 long and 124 wide. **DORSUM** - Podonotal shield 174-196 long and 135-160 wide, with 9 pairs of setae. Pygidial shield bears the following 3 pairs of setae: Z3, Z4 and J5. Length of this shield 77 at best

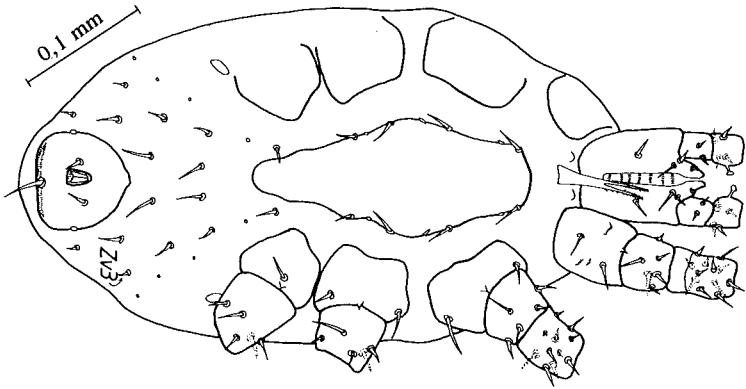


Fig. 11. *Rhinoseius chocoensis* sp. n. deutonymph in ventral view.

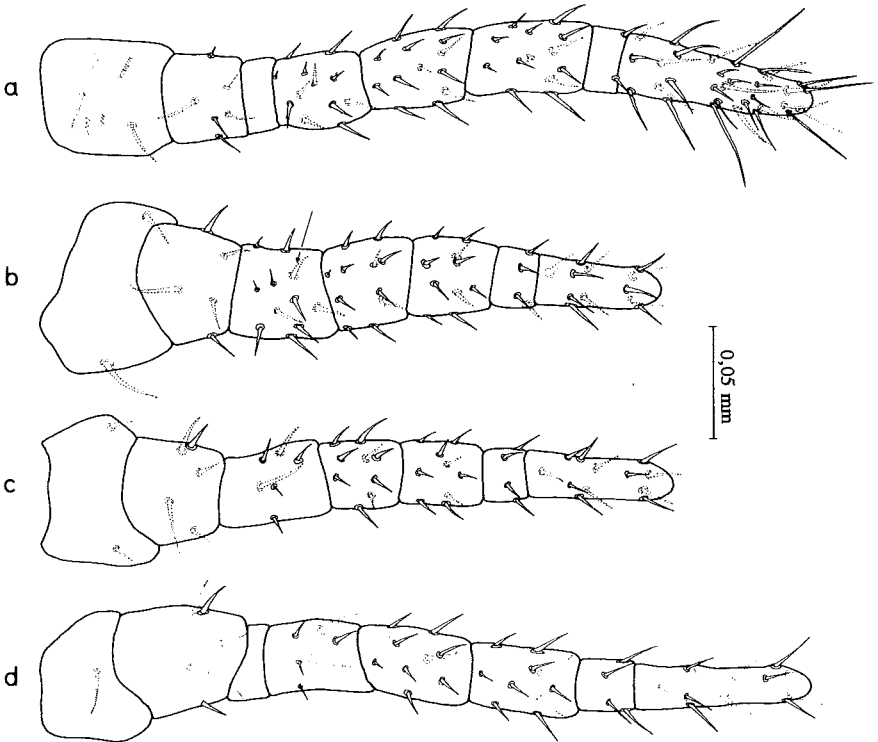


Fig. 12. *Rhinoseius chocoensis* sp. n. legs I to IV in the deutonymph (a, b, c, d). The seta av of leg II is marked.

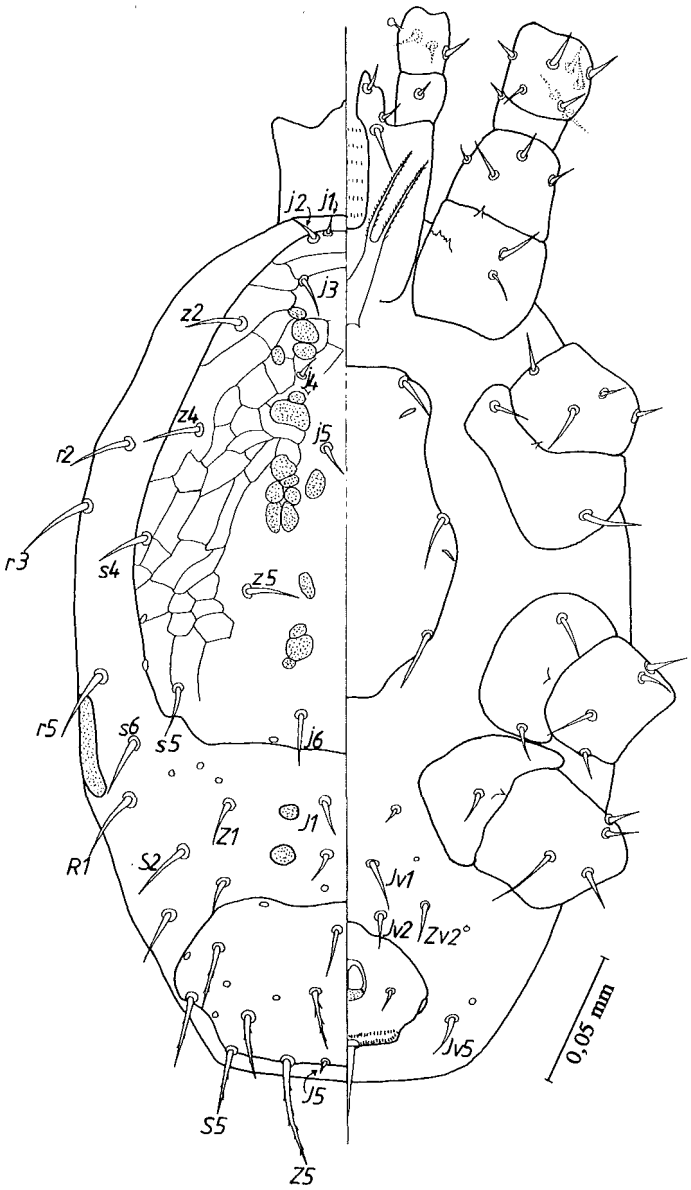


Fig. 13. *Rhinoseius chocoensis* sp. n. protonymph in dorsal (left part) and ventral (right part) view.

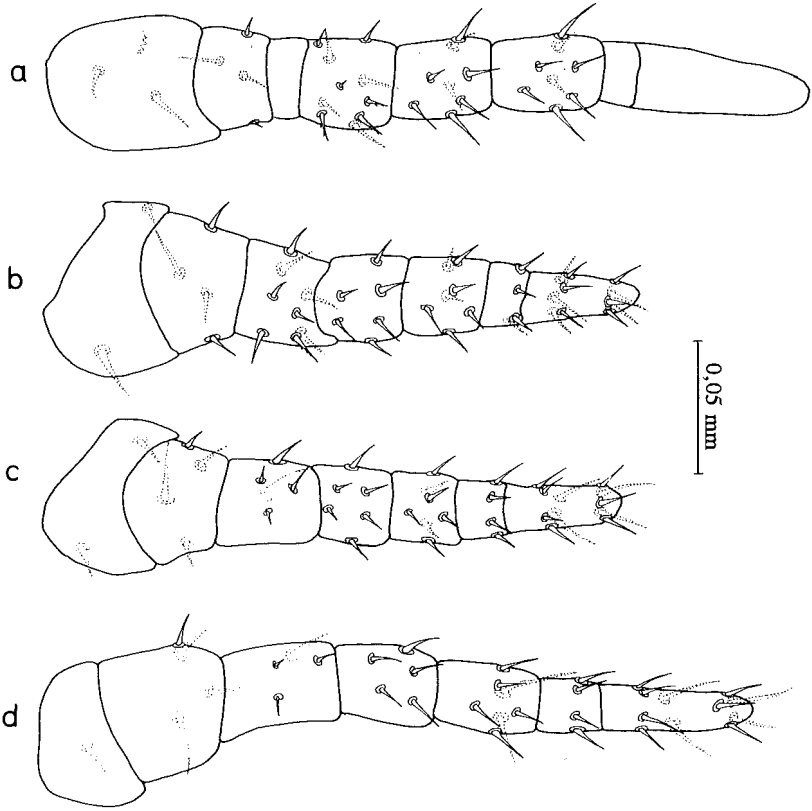


Fig. 14. *Rhinoseius chocoensis* sp. n. legs I to IV in the protonymph (a, b, c, d).

and width 112-135. Interscutal membrane bears 5 pairs of blunt, short setae: *J2*, *J3*, *s6*, *S3* & *S4*. Setae *S4* situated lateral or apparently ventral in some cases. Setae *jl* 7-10 long. Aside from *jl* the lengths of the shortest setae on podonotal shield are 4-8 and of longest setae 8-12. Length of *Z3* 14-25, this setae are always shorter than *Z4* with lengths of 18-30. *Z3* and *Z4* are rodlike setae with diameter being 4-7 at the distal tip. Length of interscutal setae 1-3 for the shortest and 6-12 for the longest. **VENTER** - Setae *Jv1*, *Jv2*, *Jv5*, *Zv2* and *S5* & *Z5* on ventral membrane of opisthosoma, with Setae *Jv5*, *S5* and *Z5* ending blunt. Anal shield 24-32 long and 46-60 wide. Paraanal setae with lengths of 20-30 always more than twice as long as postanal setae with lengths of 9-14. **LEGS** - Coxa I without visible rows of denticles. Tibia III and IV bear 7 setae. The complete chaetotaxy of the legs is given below. **GNATHOSOMA** - Rounded tectum not always visible, length 9 at best.

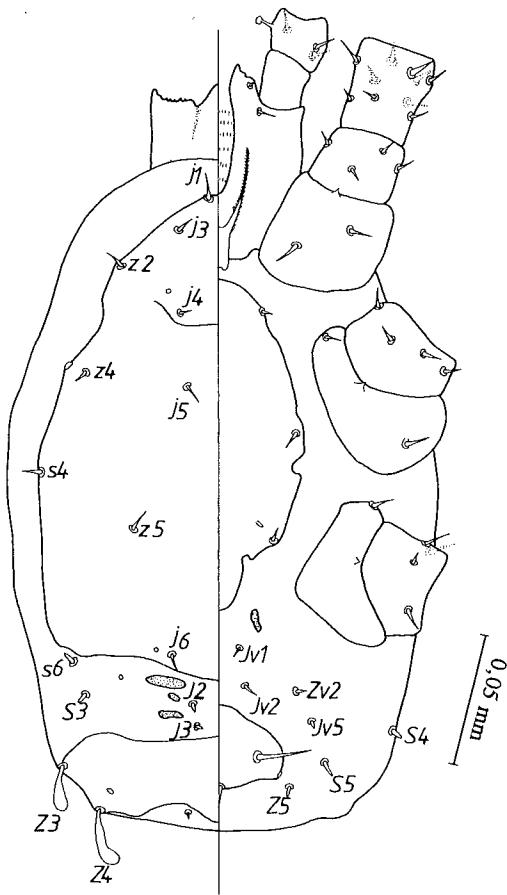


Fig. 15. *Rhinoseius chocoensis* sp. n. larva in dorsal view (left part) and ventral (right part) view.

Chaetotaxy of the legs

ADULT & DEUTONYMPH:

- Leg I - trochanter (1, 0/2, 1/1, 1); femur (2, 3/1, 2/2, 2); genu (2, 3/2, 3/1, 2); tibia (2, 3/2, 3/1, 2).
- Leg II - trochanter (1, 0/2, 0/1, 1); femur (2, 3/1, 2/2, 1); genu (2, 3/1, 2/1, 2); tibia (2, 2/1, 2/1, 2).
- Leg III - trochanter (1, 1/2, 0/1, 0); femur (1, 2/1, 1/0, 1); genu (2, 2/1, 2/1, 1); tibia (2, 1/1, 2/1, 2).

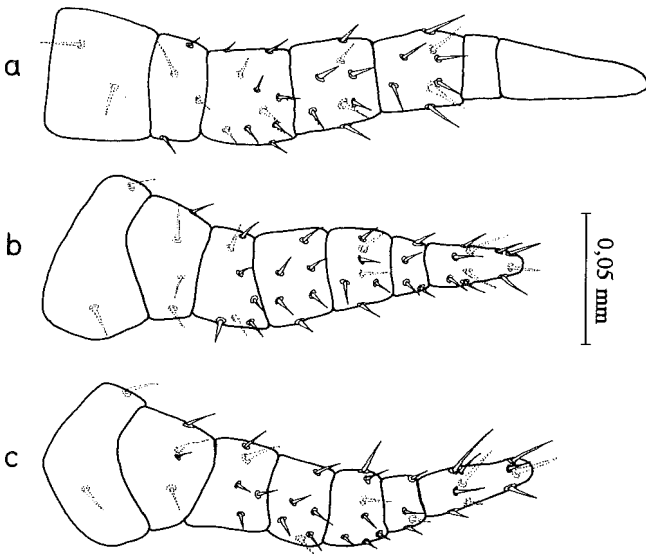


Fig. 16. *Rhinoseius chocoensis* sp. n. legs I to III in the larva (a, b, c).

Leg IV - trochanter (1, 1/2, 0/1, 0); femur (0, 2/1, 1/1, 1); genu (2, 2/1, 3/0, 1); tibia (2, 1/1, 3/1, 2).

Tarsus II to IV bearing 16 setae.

PROTONYMPH:

Leg I - trochanter (1, 0/2, 0/0, 1); femur (2, 2/1, 2/1, 2); genu (1, 2/1, 2/1, 1); tibia (1, 2/1, 2/1, 1).

Leg II - trochanter (1, 0/2, 0/0, 1); femur (1, 2/1, 2/1, 1); genu (1, 2/0, 2/0, 1); tibia (1, 1/1, 2/1, 1).

Leg III - trochanter (1, 1/1, 0/1, 0); femur (1, 2/1, 1/0, 0); genu (1, 2/0, 2/0, 1); tibia (1, 1/1, 2/1, 1).

Leg IV - trochanter (1, 1/2, 0/0, 0); femur (0, 2/1, 1/0, 0); genu (0, 2/1, 2/0, 0); tibia (1, 1/1, 2/1, 1).

Tarsus II to IV bearing 15 setae.

LARVA:

Leg I, II & III same as protonymph, except femur II with seta *pl* absent (1, 2/1, 2/1, 0) and tarsus II & III bearing 14 setae each.

Diagnosis

The new species belongs to the group "ornatus" *sensu* FAIN (1992), complemented by WIESE & FAIN (1993), according to the combination of the following characters of the adults:

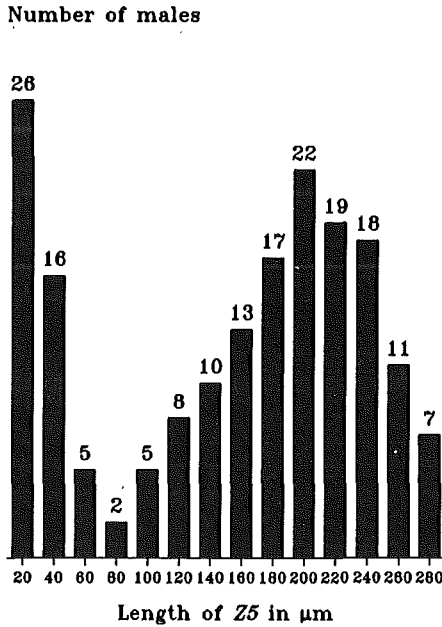


Fig. 17. *Rhinoseius chocoensis* sp. n. Frequencies of different male-phenotypes figured as length of setae Z5. Given is the number of males for different lengths of Z5 in μm . The lengths are given in intervalls of $\pm 10 \mu\text{m}$. Included are 179 of 182 males found in 153 flowers of *Kohleria* ssp. in one secondary stand defended by one territorial male *Amazilia tzacatl* DE LA LLAVE, 1833 (Aves: Trochilidae). Collection took place 8.IX. 1991 and 17.IX.1991. Note the two peaks in the distribution of male-phenotypes which makes the heteromorphism of this species obvious. Homeomorphic males are thus characterized by setae Z5 shorter than $80 \mu\text{m}$ and heteromorphic males by setae Z5 longer than $80 \mu\text{m}$.

Dorsal shield of type C, tectum rounded, coxae I bear some rows of denticles on ventral surface, coxae IV without ventral spur, tibia III with 9 and tibia IV with 10 setae. The deutonymphs are characterized in the same way except of the dorsal shields. Further the insemination structure (type 1) of the females and the number of spines of the males (tarsus II with four blunt spines, genu II and tibia II with one spine each, tarsus III with two ventral spines) are typical though not unique for the species of the group "ornatus".

The females are close to *Rh. ornatus* and *Rh. colwelli* according to the combination of the long peritreme, the short dorsal setae of more or less equal length, the number and position of *r*-setae and the absence of sclerotized platelets for the ventral and sublateral setae. The females are separated from *Rh. ornatus* by the inseminating structure, which is close to *Rh.*

colwelli. Compared to *Rh. colwelli* both sexes of the new species are 1/4 to 1/3 smaller, though relative proportions are similar.

The males are close to *Rh. ornatus*, *Rh. colwelli*, *Rh. bellavistensis* WIESE & FAIN, 1993 and *Rh. carlosalberti* WIESE & FAIN, 1993 by the spermatodactyl bearing an appendix. In the absence of a spine on tibia II the males of the new species are clearly separated from the three latter species. From *Rh. ornatus* the males are distinguished also in its homeomorphic forms by the absence of any setae laterad to the posterior end of the sternal shield in the new species.

The deutonymphs are separated from *Rh. colwelli* by its general size, which is one fourth to one third smaller. The dorsal setae even tend to be only half as long as in *Rh. colwelli*. The protonymphs of the new species can be separated from *Rh. colwelli* by the greater number of barbed setae on the pygidial shields and the smaller size (1/5 to 1/4), while the dorsal setae tend to be overproportionally shorter. Setae Z5 are proportionally longer than in *Rh. colwelli*.

Hosts

308 ♀, 239 ♂, 324 deutonymphs, 476 protonymphs and 598 larvas were collected in 164 flowers of a species *Kohleria* ssp. REGEL, 1848 (*Gesneriaceae*: *Gloxinieae* FRITSCH, 1893). 13 hatching stages of a deutonymph with a female each and 12 with a male each, 11 hatching stages of protonymphs with a deutonymph each and 8 hatching stages of larvas with a protonymph each were found. Thus *Rh. chocoensis* is documented as one species for all live stages with certainty.

The holotype female was collected together with 3 paratype females, 2 heteromorphic paratype males, the allotype deutonymph and 6 paratype deutonymphs, the allotype protonymph and 3 paratype protonymphs, the allotype larva and 4 paratype larvas in host No.383/131, 17.IX.1991. The allotype of the heteromorphic males was collected together with five paratype females, 1 heteromorphic and 1 homeomorphic paratype male, 2 paratype protonymphs and 4 paratype larvas in host No. 406/154, 17.IX.1991. The allotype of the homeomorphic males was collected together with three paratype females, three heteromorphic paratype males, 10 paratype deutonymphs, 6 paratype protonymphs and 22 paratype larvas in host No. 390/138, 17.IX.1991.

Additional specimens were found in the flowers of two species *Gesneriaceae* ssp.

Remarks on the leg chaetotaxy within the genus *Rhinoseius*:

Setation of the legs I-II-III-IV, respectively, is for all available specimens as follows: trochanter 6-5-5-5, femora 12-11-6-6, genua 13-11-9-9 and tibiae 13-10-(8 or 9)-(9 or 10). All species of the group "tiptoni" (*sensu* WIESE & FAIN, 1993: except *Rh. epoecus* COLWELL & NAEEM,

1979) show 8 setae on tibia III (2, 1/1, 2/1, 1) and 9 setae on tibia IV (2, 1/1, 3/1, 1), while all species of the groups "ornatus" (including *Rh. epoecus*) and "wetmorei" show one additional seta *pl* on each of this segments, thus having 9 setae on tibia III (2, 1/1, 2/1, 2) and 10 setae on tibia IV (2, 1/1, 3/1, 2).

We propose the use of the chaetotaxy of these segments for separating the group "tiptoni" from the groups "ornatus" and "wetmorei".

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