

## **A New Species of Genus *Neon* (Araneae, Salticidae) from Korea**

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### **ABSTRACT**

A new species, *Neon rostratus* n. sp., is described with illustrations. This species is closest to *N. avalonus* especially in the shapes of palpal organ and epigynum, but, in female, is readily separated by comparing the size of spermathecae, which is remarkably larger than that of *N. avalonus*. The male of *N. rostratus* can be clearly distinguished from other *Neon*-species by the tip structure of ejaculatory duct.

Key words: Salticidae. *Neon*, n. sp., Korea.

### **INTRODUCTION**

Spiders of the genus *Neon* are those of the smallest members of the family Salticidae. Seventeen species as follows have been recorded up to date all over the world: 5 (*avalonus*, *ellamae*, *nellii*, *pixii* and *plutonus*) Nearctic, 8 (*convolutus*, *levis*, *muticus*, *pictus*, *pusio*, *rayi*, *robustus* and *valentulus*) Palearctic, 1 (*reticulatus*) Holarctic, 1 (*minutus*) Oriental and 2 (*nigriceps*, *puntulatus*) Neotropical species (Roewer, 1954; Brignoli, 1983; Platnick, 1989; 1993). Gertsch and Ivie (1955) insisted that the Cuban species described as *N. nigriceps* presents genitalic differences that clearly indicated it had to be assigned to a different genus. And no one has reported *N. puntulatus* since Karsch described the Bolivian spider as new species without illustration in 1880. Thus spiders clearly belonging to genus *Neon* seem to comprise 15 species of Northern Hemisphere. In Korea, only one species, *N. reticulatus*, has been reported by Namkung (1986).

The author found out a new species from specimens collected from Mt. Kūmo, Kumi, Kyōngsangbuk-do and Mt. Kūmjōng, Pusan from April, 1975 to September, 1994, and describes it with illustrations in the present paper.

The abbreviations used in this paper are as follows: CAL, carapace length (from the front of anterior median eye to the posterior end of carapace); CAW, carapace width; ER, eye row; FE, femur

length; P, patella length; T, tibia length; M, metatarsus length; TA, tarsus length; F1D, width of first femur; A, position of ER2 (from the front of anterior median eye to the center of posterior median eye); B, height of ocular quadrangle (from the front of anterior median eye to the posterior end of posterior lateral eye); C, diameter of anterior median eye; D, diameter of anterior lateral eye; E, diameter of posterior median eye; F, diameter of posterior lateral eye; G, interval of posterior lateral eyes; AL, abdomen length; AW, abdomen width; CL, clypeus height; CH, chelicera length.

## DESCRIPTION

Genus *Neon* Simon, 1876

### *Neon rostratus* n. sp. (Figs. 1-7)

**Type specimens.** Holotype: male, Pusan, Kümjõngsan, 5 May 1975, J. H. Kim. Allotype: female, Kyõngsangbuk-do, Kumi, Kūmosan, 4 September 1994, Y. H. Kim. Paratype: one male, Pusan, Kümjõngsan, 13 April 1975, J. H. Kim; one female, Kyõngsangbuk-do, Kumi, Kūmosan, 12 June 1983, J. M. Park; two males, Kyõngsangbuk-do, Kumi, Kūmosan, 4 and 25 September 1994, Y. H. Kim. All type specimens are deposited in the collection of Department of Biology, Keimyung University.

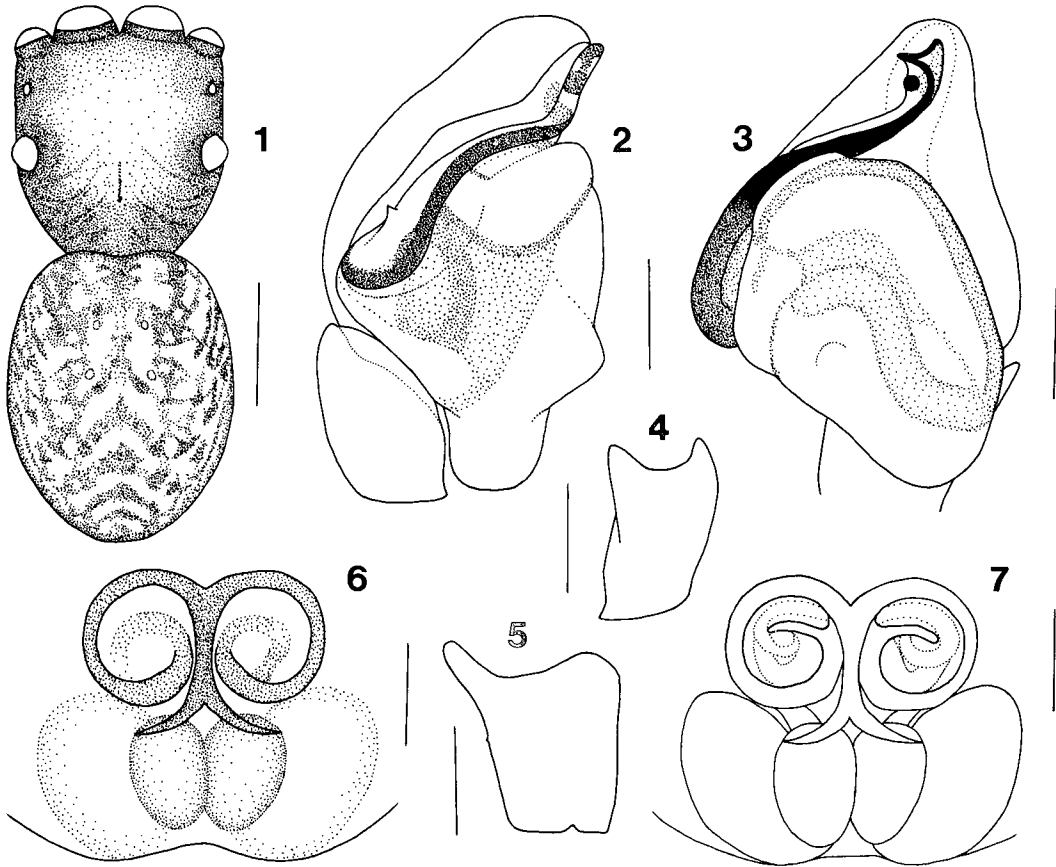
**Description.** Male (holotype): Carapace reddish brown with a narrow black marginal streak, moderately longer than wide; median groove a slight depression; radial black stripes behind median groove. Head yellowish brown; front and both sides black. Ocular quadrangle, anterior side = posterior side > height (85:66). Eye field occupies front 0.62 times of the length of carapace. 2nd eye row set back from front 0.52 times of the ocular quadrangle height. Clypeus height a fourth of the diameter of anterior lateral eye. Chelicera reddish brown with one retromarginal and two promarginal teeth. Sternum oval, with sparse dusky dots over a reddish brown base color. Labium reddish brown, and front pale yellow. Endite reddish brown, and inner and front margin pale yellow.

First legs reddish brown except yellow patellae and tarsi. Other legs yellowish brown, with reddish brown femora and reddish brown patches at terminal of other segments. Leg formula 4123. Leg spination as follows (numerals in parentheses are variations showing at male paratypes): tibiae I v2-2-2, II v1-1-0(1), III p(0-0-1), r(0-0-1); metatarsi I v2-2, II v2-2, III v0-1-2(2-2), p0-0-1(0-0-2), r0-0-1(0-0-2), IV v0-0-2, p0-0-1(0-0-2), r0-0-1. Palp reddish brown, and both sides of each segments dark brown except cymbium. Embolus of copulatory organ with a single coil at base, and the details of it shown in figures 2-5.

Abdomen oval, yellowish brown; dorsum with a series of dark brown chevrons longitudinally; sides with several thin dark brown stripes running its full length; venter with three wide dark brown stripes from front to tracheal spiracle.

Female (allotype): Color pattern and general appearance essentially same as in holotype, but carapace covered with sparse white hairs except head with sparse brown hairs. Ocular quadrangle, anterior side = posterior side > height (87:68). Eye field occupying front 0.61 times of the length of carapace. Second eye row set back from front 0.51 times of ocular quadrangle height.

Leg spination as follows (numerals in parentheses are variations seen in female paratype): tibiae I v2-2-2, II v1-1-0(1-2-0), p0-0-1, III p0-0-1, r0-0-1; metatarsi I v2-2, II v2-2, III v1-2, p0-0-2, r0-0-1,



**Figs. 1-7.** *Neon rostratus* n. sp., male (holotype) and female (allotype): 1. male, dorsal view; 2. male palpal organ, prolateral view; 3. ditto, ventral view; 4. male palpal tibia, retrolateral view; 5. ditto, dorsal view; 6. epigynum of female; 7. internal genitalia of female. Scale lines: 0.5 mm (fig. 1), 0.1 mm (figs. 2-7).

IV v0-0-2, p0-0-1, r0-0-1.

Genital organ shown in Figs. 6-7.

**Measurements (mm).** Holotype/ranges of four male types including holotype/allotype/ranges

of two female types including allotype. CAL 1.06/0.99-1.10/1.11/1.05-1.11. CAW 0.81/0.72-0.82 /0.85/0.78-0.85. ER1 0.85/0.72-0.85/0.87/0.79-0.87. ER2 0.78/0.67-0.78/0.78/0.72-0.78. ER3 0.85/0.73-0.85/0.87/0.80-0.87. F1D 0.22/0.20-0.24/0.24/0.22-0.24. FE1 0.60/0.51-0.61/0.62/0.59-0.62. P1 0.34/0.27-0.34/0.35/0.33-0.35. T1 0.41/0.35-0.41/0.42/0.39-0.42. M1 0.29/0.24-0.29/0.30/0.27-0.30. TA1 0.31/0.22-0.31/0.26/0.25-0.26. total 1 1.95/1.62-1.95/1.95/1.82-1.95. FE2 0.51/0.43-0.52 /0.50/0.48-0.50. P2 0.29/0.26-0.30/0.31/0.28-0.31. T2 0.30/0.25-0.33/0.31/0.29-0.31. M2 0.28/0.21-0.28/0.27/0.25-0.27. TA2 0.30/0.24-0.30/0.26/0.24-0.26. total 2 1.69/1.40-1.69/1.66/1.54-1.66. FE3 0.65/0.49-0.65/0.61/0.56-0.61. P3 0.29/0.24-0.29/0.30/0.26-0.30. T3 0.46/0.27-0.46/0.34/0.30-0.34. M3 0.47/0.29-0.47/0.36/0.33-0.36. TA3 0.33/0.25-0.33/0.26/0.22-0.26. total 3 1.54/1.06-1.54/1.26 /1.11-1.26. FE4 0.78/0.55-0.78/0.69/0.63-0.69. P4 0.34/0.24-0.34/0.33/0.28-0.33. T4 0.52/0.37-0.52 /0.48/0.42-0.48. M4 0.53/0.38-0.53/0.49/0.44-0.49. TA4 0.33/0.26-0.33/0.

29/0.28-0.29. total 4 2.50/1.83-2.50/2.28/2.06-2.28. A 0.34/0.26-0.34/0.35/0.24-0.35. B 0.66/0.55-0.66/0.68/0.56-0.68. C 0.23 /0.21-0.26/0.25/0.23-0.25. D 0.16/0.14-0.17/0.17/0.16-0.17. E 0.04/0.03-0.04/0.05/0.04-0.05. F 0.15/0.13-0.15/0.16/0.15-0.16. G 0.67/0.56-0.67/0.61/0.61. AL 1.15/0.93-1.15/1.22/1.01-1.22. AW 0.87 /0.69-0.87/0.85/0.78-0.85. CL 0.04/0.04-0.05/0.04/0.04-0.07. CH 0.33/0.26-0.33/0.24/0.24-0.28.

**Etymology.** The specific name is derived from Latin adjective meaning "beaked", with regard to the beak-like shape of the tip of ejaculatory duct.

**Remarks.** *N. avalonus* and *N. rostratus* are clearly distinguished from the other species of *Neon* by two pairs of spermathecae in females. These two species are similar in genital organ of females, but the size of inner spermathecae of *N. rostratus* is remarkably larger than that of *N. avalonus*. The male of *N. rostratus* is different from other *Neon*-species in the tip structure of ejaculatory duct of copulatory organ.

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한국산 *Neon*속(거미목, 깡충거미과)의 1신종

서 보 근

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요 약

신종 *Neon rostratus*(부리네온깡충거미: 신칭)를 그림과 함께 기재한다. 이는 기지종 중 *N. avalonus*와 제일 비슷하나, 암컷의 수정낭 크기에서 쉽게 구분되며, 수컷의 경우는 교미기관의 사정관 끝부분 구조에서 기존의 모든 *Neon*속의 종들과 잘 구분된다. 이로서 한국산 *Neon*속의 거미는 2종이 된다.