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**A new biting midge of the genus *Jenkinshalea* from the Democratic People's Republic of Korea (Diptera, Ceratopogonidae)**

**Nowy kuczman z rodzaju *Jenkinshalea* z Koreańskiej Republiki Ludowej (Diptera, Ceratopogonidae)**

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**Synopsis.** *Jenkinshalea paliki* sp. n. from the Democratic People's Republic of Korea is described and illustrated. This is the second species of the genus in the Palaearctic region.

*Jenkinshalea* Macfie of the tribe *Sphaeromiini*, subfamily *Ceratopogoninae*, is a small genus with 18 described species from the Nearctic (4 spp.), Oriental (4), Australian (1), Afrotropical (8) and Palaearctic (1) regions. In the Palaearctic region only one species has previously been described, i.e. *Jenkinshalea stenoptera* Remm from Turkmen SSR.

*Jenkinshalea paliki* sp. n.  
(Figs. 1—12)

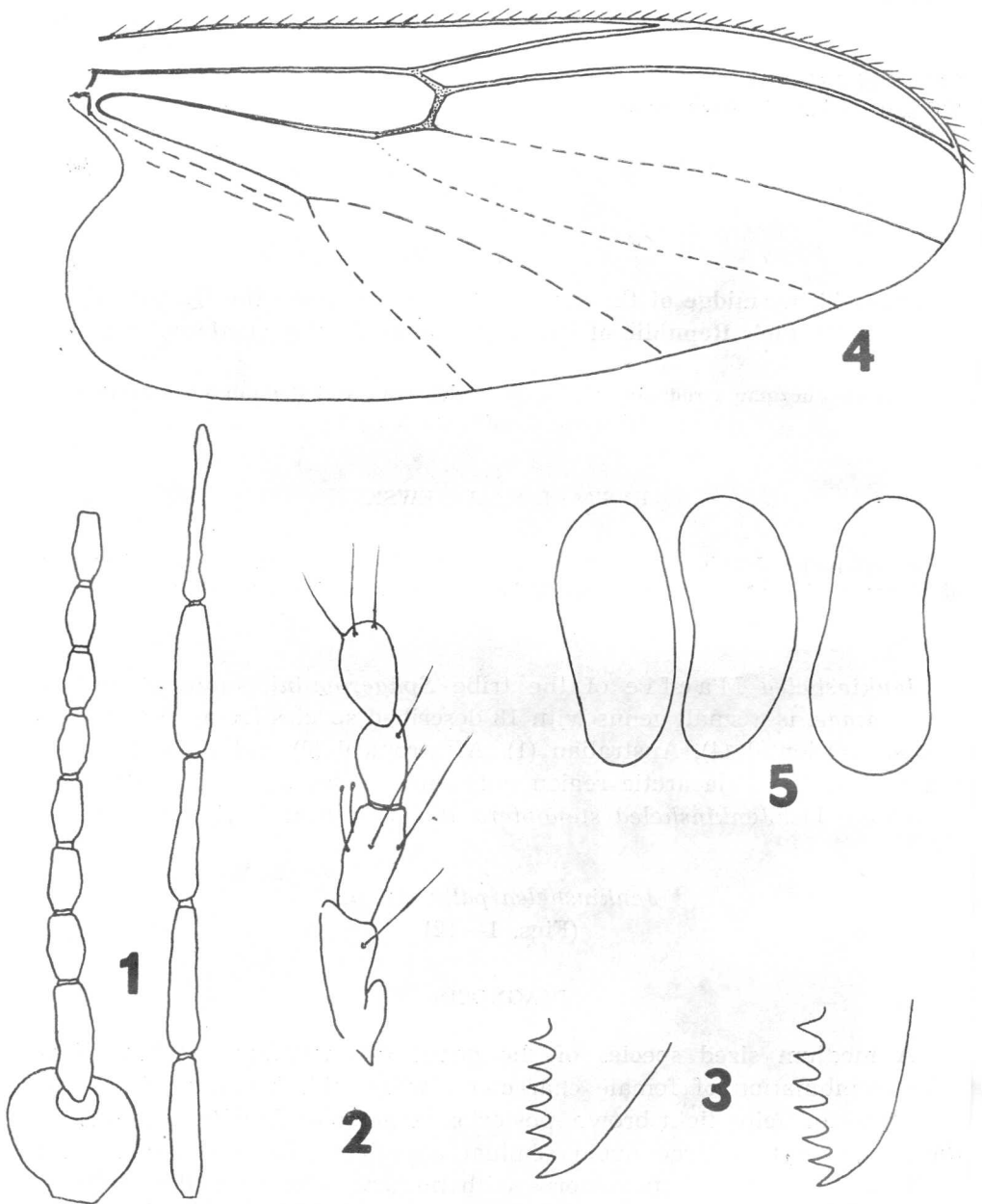
DIAGNOSIS

A medium sized species of the genus distinguished by the following combination of female characters: wing with broad single radial cell, anterior veins light brown, posterior veins pale; flagellum uniformly dark brown; two large ovoid seminal capsules; fifth tarsomeres with 6—8 batonnets, fourth tarsomeres with numerous long sensilla capitata.

DESCRIPTION

FEMALE

Eyes bare, broadly separated. Antenna dark brown. Proximal 8 flagellomeres subovoid, distal 5 elongated (fig. 1). Antennal ratio 1.37. Proboscis pale. Palpus light brown with 5 segments. Third palpal segment



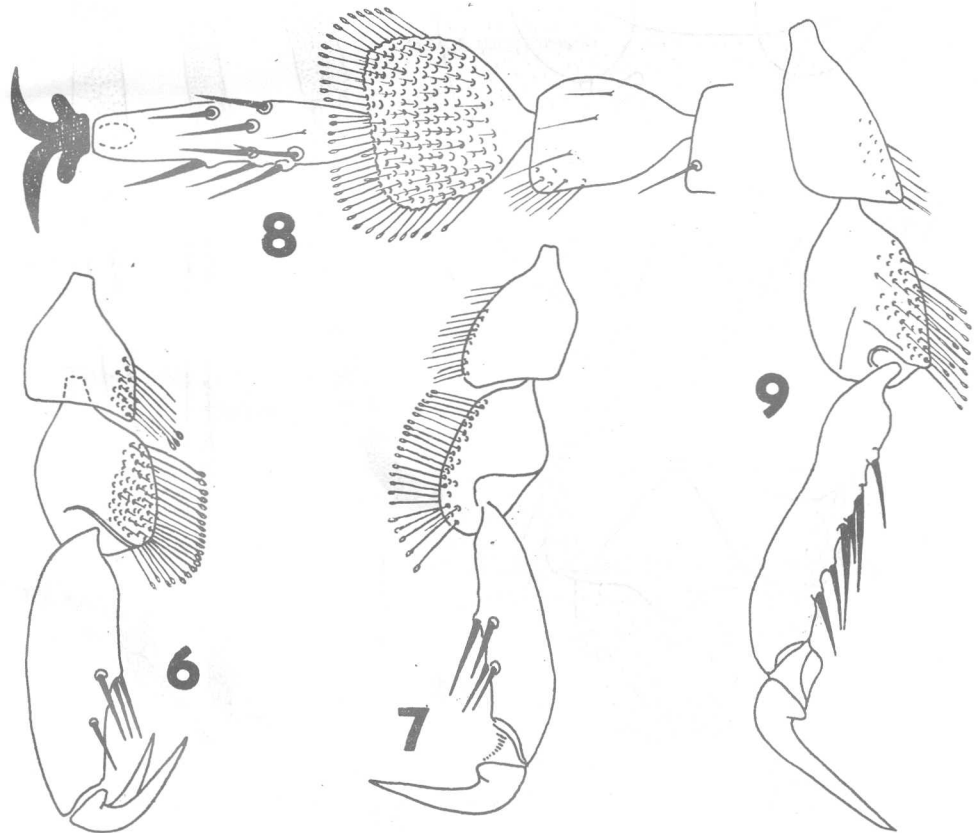
Figs. 1—5. *Jenkinshalea paliki* sp. n., female  
 1 — flagellum, 2 — palpus, 3 — mandibles, 4 — wing, 5 — eggs

about 48  $\mu\text{m}$  long, with some ventromesal sensilla capitata (fig. 2). Mandible armed with 7 large coarse teeth (fig. 3).

Thorax dark brown. Scutum covered with fine pubescence and short sparse setae; anterior spine or tubercle and prescutal pits absent. Scutel-

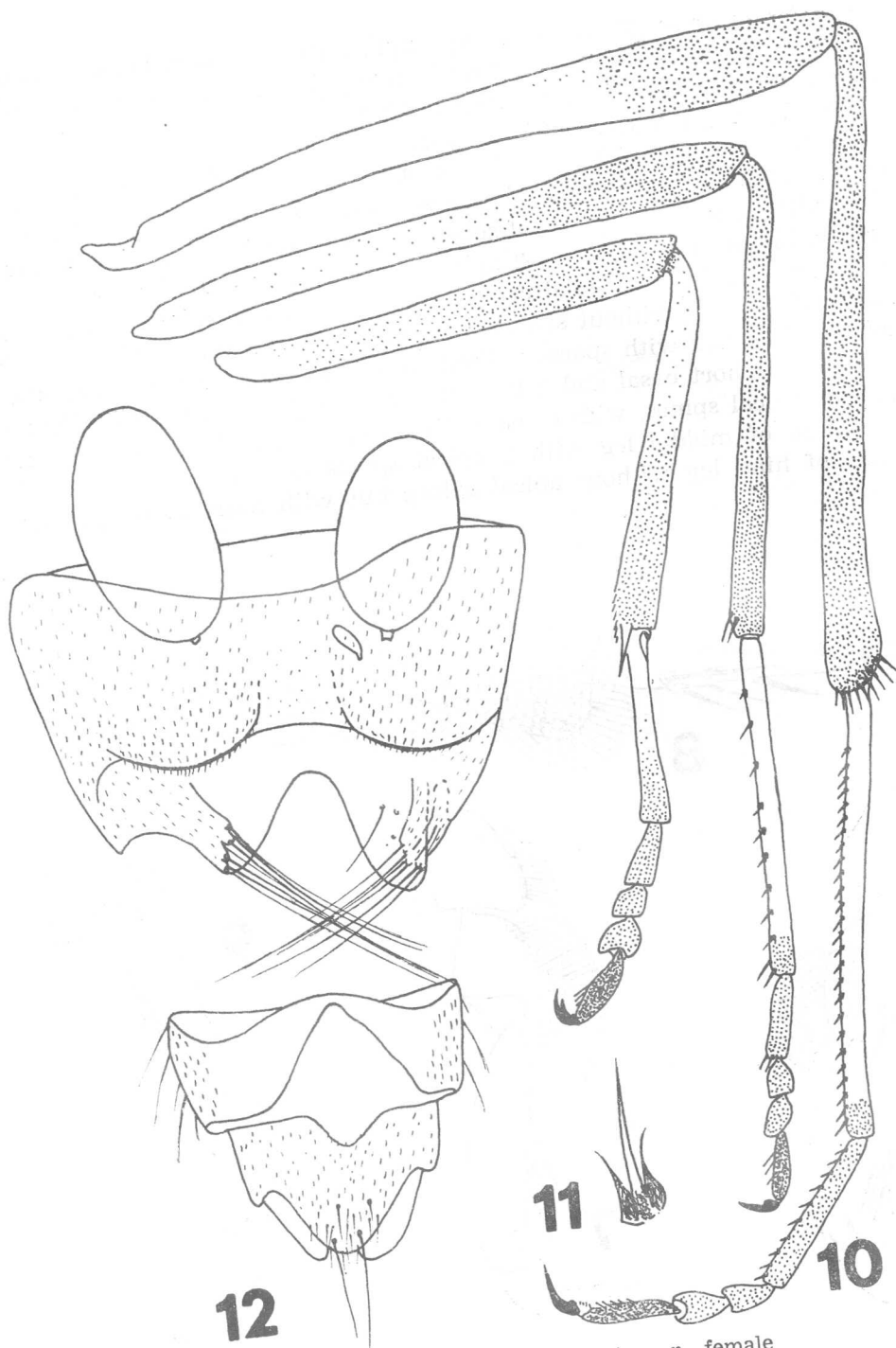
lum with some longer setae. Wing length 2.73—3.21 mm, breadth 1.20—1.40 mm; hyaline with broad anal angle with single long, broad radial cell; anterior veins light brown, posterior veins pale; costa extending almost to wing tip (fig. 4). Halter pale.

Legs brownish with paler bases of femora and fore tibia, basitarsi yellow with brown apices, fifth tarsomeres dark brown (fig. 10). Fore tibia with dense apical patch of setae and dense comb; tibial spur distinct, yellow. Middle tibia with 1—2 apical spines. Hind tibia with heavy apical patch of setae and tibial comb composed of ca. 9 large spines. Basitarsus of fore leg without stronger setae. Middle basitarsus with 2 black apical spines and with sparse palisade setae, i.e. setal clusters, each consisting of 2 short basal and 1 long central seta (fig. 11). Hind basitarsus without apical spines, with dense palisade setae in a single row. Second tarsomere of middle leg with 2 apical spines and with some palisade setae, of hind leg without apical spines but with more dense palisade



Figs. 6—9. *Jenkinshalea paliki* sp. n., female

6 — distal tarsomeres of fore leg, 7, 8 — distal tarsomeres of middle leg, 9 — distal tarsomeres of hind leg



Figs. 10—12. *Jenkinshalea paliki* sp. n., female  
 10 — legs, 11 — palisade seta, 12 — genitalia

setae. Fourth tarsomeres cordate, of hind leg somewhat elongated (figs. 6—9), each with numerous long and slender ventral sensilla capitata. Third tarsomere of fore leg also with some sensilla capitata. Fifth tarsomeres with 6—8 ventral batonnets (figs. 6—9). Fifth tarsomere of fore leg somewhat inflated. Claws equal, fused at bases, each with blunt external basal tooth (fig. 8). Claws of hind leg distinctly longer than the rest. Tarsal ratio of foreleg 2.7—2.9, of midleg 3.5, of hindleg 2.6—2.8.

Abdomen paler than thorax, with dark brown genital segments. Cerci yellow. Genital segments VIII—X ring-shaped (fig. 12). Sternite VIII with a deep caudomedian notch and very long setae located on distinct tubercles at both sides of the notch. Sternite IX weakly sclerotized, undivided but with deep and broad caudomedian triangular notch. Sternite X with 2 long apical setae. Two ovoid functional seminal capsules and third rudimentary one present. Each functional seminal capsule with short neck; dimensions:  $164 \times 88$  and  $136 \times 82 \mu\text{m}$ ,  $n = 1$ . Egg relatively short (fig. 5).

#### MALE UNKNOWN

#### MATERIAL EXAMINED

Holotype — ♀, People's Republic of Korea, Mjohjang-san Mts, 400 m, 20 VI 1983, E. Palik leg. Paratype — ♀, same data as the holotype. The holotype is deposited in the Department of Systematic and Experimental Zoology, Polish Acad. Sci., Cracow. Paratype, in the author's collection.

#### ETYMOLOGY

This species is named for Mr Edward Palik of the Department of Systematic and Experimental Zoology, Cracow, the collector of the type specimens.

#### DISCUSSION

*J. paliki sp. n.* can be readily distinguished from Holarctic species by its single radial cell. All four *Nearctic species* of the genus (Grogan and Wirth, 1977) and the Palaearctic *J. stenoptera* (Remm, 1979) have two radial cells.

Single radial cell occurring in the new species is rather atypical for the genus since this character has only been found in four other species. They are: *J. rhodesiensis* de Meillon from South Africa, *J. papuae* Tokunaga (Tokunaga, 1966) from New Guinea, *J. tokunagai* Grogan et Wirth from Thailand and *J. setosipennis* Grogan et Wirth from Malaysia (Grogan and Wirth, 1981). The Oriental species with a single radial cell differ from *J. paliki sp. n.* as follows: female of *J. tokunagai* has two small seminal capsules, the larger one being  $70 \times$

× 50 μm, and its radial cell is very narrow; *J. setosipennis* (only male known) is a smaller and darker species with uniform brown halteres and legs.

The new species has fourth tarsomeres (plus third tarsomere of fore leg) covered with fine hyaline capitate sensory setae. Similar sensilla on fourth tarsomeres have also been found in female of *Jenkinshalea djalonensis* Clastrier described from the Republic of Guinea in Africa (Clastrier, 1983). This is an unusual character within the family, and it is found only in the genus *Jenkinshalea*. These sensilla are very similar to sensilla capitata occurring on the third and sometimes fourth palpal segments of all biting midges. They are most similar to the long and fine sensilla capitata of the palpi of *Dasyhelea* Kieffer.

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