ISSN 1211-8788 *Acta Musei Moraviae, Scientiae biologicae* (Brno)
**86:** 171–175, 2001

# Another pugnacious thrips, *Tragothrips kubani* gen.nov. and sp.nov., from Laos (Thysanoptera, Phlaeothripidae)

JAROSLAV PELIKÁN

*Klatovská 26, 602 00 Brno, Czech Republic*

PELIKÁN J. 2001: Another pugnacious thrips, *Tragothrips kubani* gen.nov. and sp.nov., from Laos (Thysanoptera, Phlaeothripidae). *Acta Musei Moraviae, Scientiae biologicae* (Brno) **86**: 171–175. – A new genus and species of the family Phlaeothripidae (Thysanoptera) is described from Northern Laos. Its remarkable horn-like projections on the first antennal segment have not been previously found in Thysanoptera. They testify the aggressive potential of this thrips in competing for access to food resources or in protecting its eggs. The new genus belongs in the *Elaphrothrips* group of species, but it is not easy to state the exact relationship at present.

**Key words:** Thysanoptera, Phlaeothripidae, *Tragothrips kubani* gen.nov., sp.nov., Laos

## *Tragothrips* gen.nov.

**Type species:** *Tragothrips kubani* sp.nov.

**Description.** Body large and robust (Fig.1), moderately depressed, free from sculpture, only a few long setae developed. Head unusually long and slender, with anteocular projection nearly 2.5 times as long as wide across the base and 1.4 times as long as the median length of pronotum. Eyes in contact with posterior ocelli, no prolongation on ventral surface. Cheeks straight, slightly diverging basad. Only one pair of prominent dorsal setae developed, pointed postoculars. Ocellar area and dorsum with a few minute setulae. Antennae eight-segmented, rather short, segment I strong, thick, curiously formed in an acute spine directed forward. Mouth cone short, rounded, maxillary guides and mandibular stylet deep in head. Pronotum smooth, without any sculpture, median apodeme strong, notum with several minute setulae, only posterior part with long setae. Epimeral and notopleural sutures well developed, fore- coxae large and strong. Basantra membranous, not chitinised, ferna divided into two large sclerites closely placed together. Behind them a small, transverse semilunar postferna is developed. Meso- and metathoracic sternopleural sutures developed, simple, in posterior parts nearly complete. All legs smooth, without any warts or spines. Wings fully developed, nearly parallel-sided, slightly tapering to the tip, duplicated ciliae present. Pelta extremely reduced to a small central, longitudinal oval fragment. Abdomen heavy, II.–VI. tergites with two pairs of wing-retaining setae, at sides with 5–6 pairs of accessory sigmoid setulae. Posterior angles of segments only with pointed setae. Tube normal, surface without any setulae, glabrous.

**Differential diagnosis.** The most distinct character of the new genus is the curious horn-like projection of the first antennal segment, until now unique among Thysanoptera. It is

an ecologically conditioned organ. Without any doubt, it serves as an offensive weapon in competing for space, food and in guarding clusters of eggs, as it is known in other similar mycophagous species (PELIKÁN 1947, 1990, ANANTHAKRISHNAN 1983, 1986, ANANTHAKRISHNAN & SURESH 1983, CRESPI 1986, 1988, and others). *Tragothrips* nov. belongs, among Phlaeothripidae, to the subfamily Idolothripinae, tribus Idolothripini, subtribus Elaphrothripina, having glabrous tube and two pairs of wing-retaining setae on tergites. It comes into the vicinity of the long-headed phlaeothripids, especially with those having pronotal as well as other body setae rudimentary. Some of the representatives of the Elaphrothripina have prolonged hind margin of eyes on the ventral side, which character is probably apomorphic, separating *Tragothrips* nov. with non-produced eyes to a more plesiomorphic position (PRIESNER 1949, PALMER & MOUND 1978, MOUND & PALMER 1983, MOUND & MARULLO 1996, BHATTI 1998). Apomorphic characters of the new genus are reduced setae especially on head and pronotum, two pairs of wing-retaining setae and reduced narrow longitudinal pelta (MOUND & PALMER 1983, BHATTI 1998). These resemble the conditions of some *Adraneothrips* HOOD, 1925, *Aleurodothrips* FRANKLIN, 1909, *Bradythrips* HOOD & WILLIAMS, 1925 and *Baenothrips* CRAWFORD, 1948, which belong, of course, in quite distant groups. More exact systematic determination of *Tragothrips* nov. seems unreasonable at present.

**Etymology.** *Tragos* = male goat, with respect to the horns, *thrips* = a worm.

### *Tragothrips kubani* sp.nov. (Figs 1–3)

**Material examined.** Holotype, female: "LAOS-N, 24.iv.–16.v.1999, Louang Phrabang prov., 20°33–4'N 102°14'E, Ban Song Cha (5km W), ±1200 m, Vít Kubáň leg." The holotype is deposited in the Moravian Museum, Department of Entomology, Brno, Czech Republic.
**Type locality.** N Laos, NW Louang Phrabang prov., 5km W of Ban Song Cha, 20°33–4'N 102°14'E, ±1200 m.

Total L. of the robust body 3.7 mm.*)

**Description.** Coloration. Body brown to dark brown, all femora dark brown, all tibiae and tarsi bright yellow. Antennal segment I brown, II–VIII yellow to brownish yellow. Tube bicolorous, basal third brown, distal two-thirds bright yellow, major body setae yellow. Wings colourless, with one darker, indistinct longitudinal vein. All setae yellowish, hairlike, perfectly pointed.

Head very long and slender, conical (Fig. 1), L. 530 (W. just behind eyes 205, W.b. 246), frontal anteocular prolongation L. 70 (155 wide), i.e. head 2.2 times as long as wide. Total L. of head and frontal projection 600. Sides of head straight, slightly diverging basad, smooth, without any warts or spines, with only few sparse setulae, which are also on the vertex. Eyes 120 long, hind margin not prolonged ventrally. Ocellar triangle narrow and high, L. 85 (W. 80), one pair of anteocellar setulae at the level of fore-ocellus, at the inner margin of the compound eye. Pok. setae 250–265 long. Mouth cone short, shortly rounded at tip, reaching the middle of the prothorax. Maxillary guides

*) Abbreviations: L = length, W = width, g.W.= greatest width, W.a. = width across apex, W.b. = width across base, all measurements in micrometres.

retracted into about the half of the head. Mandibular stillet strongly chitinised, L. 240, its joint in the basal quarter of the head. L. of the head with mouth cone 792.

Antennae eight-segmented, Hoplothrips-formed, L. (and W.) of segments: I. 200–215 (70–75), II. 96–108 (52–58), III.–VIII. lost during mounting. Segment I. very specialised (Fig. 2). It is very large and stout, strongly sclerotised, basal half thick, about 120 long (W. 70–75), parallel-sided, cylindrical. Distal half about 100 long, narrowed, forming on the inner side a long, two-tipped bayonet, divided longitudinally into two spiny parts. Both tips only 20 wide, connected with a very fine rim. The basal cylinder on the outer margin with a distinct spiny protrusion, 27 long. The II. antennal segment cup-shaped, prolonged, with distinct round areola in the distal half (Fig. 2). Segments III.–VIII. short.

Prothorax. Dorsal plates distinctly limited, median apodeme on dorsum very strong and distinct. Integument between head and and pronotum 130 long, with two pairs of sensillar spots. Median L. of notum 420, plate slightly constricted at anterior margin, where it is 265 wide. Greatest W. of notum in the second quarter 396, least W. in the last quarter 240, posterior margin W. 300. Prothorax with coxae W.700.Pronotal setae pointed, anteromarginals, anteroangulars and midlaterals minute or totally reduced, posteroangulars 130–150, epimerals 290, coxal spine 22–35. Notum with about 10 pairs of fine setulae.

Pterothorax. Quadrate, very heavy, L. 780 (W. 650), dorsum without distinct sculpture. Mesonotum short, transverse, L. 145 (W. 440), with two pairs of anteroangular setulae behind each other. Metanotum with 3 setulae obliquely set in anterior angles. Dorsal pair of setae shifted caudad far from the anterior margin, 60 apart from each other. Sides of notum with longitudinal wrinkles, converging roundly caudad. Metascutum short, without structure or setulae.

Legs. Moderately long and stout, forelegs heavy incrassate even in female. Fore-femur very robust, L. at outer margin 710 (g. W. across base 250), thick at base, outer margin with a long pointed seta just behind the middle (L. 310) and one preapical seta 60–70. On inner margin one preapical seta 50–60, standing more basad. Fore-tibia short and thick, L. 276 (W.110) slightly bent inward. Apical margin with upper seta 135–140, one shorter seta on outer corner (115), one longer seta (155–163) on inner lower corner and one upper yellowish spine (62–76) on a small protuberance. Fore-tarsus heavy, L. 145 (W. including a strong hook 92), tarsal tooth long and sharp with a small seta (30) at the base of outer margin). Middle legs 408 (156), 336 (94), 155 (66). Hind legs 505 (180), 468 (96), 120, (72).

Wings. Fully developed, L. 2.22 mm, W. across base 145, slightly tapering to the tip, W. before the end 180–190, with 24–27 accessory ciliae. Fore-wing with one dark longitudinal vein.

Abdomen. Robust, sum of the segment lengths including tube 2.9 mm, g.W. 850 across the segment IV. Pelta rudimentary (Fig.3), central part reduced to a small, longitudinal elipsoid fragment, L. 185 (W. 50), smooth, without any structure, surrounded by dotted integument with a dorsolateral setula 180 long. Distance between the two setulae about 170. Tergite II–VI with two pairs of sigmoid wing-retaining setae,

rather thin. In anterolateral area, 5–6 smaller sigmoid setulae are developed. Dorsum of tergites with a pair of spot-like sensillae. Posterior margin with two marginal and one posteroangular seta, L. 310. Segment IX L.163 (W.b. 325, W.a. 205), posteromarginal setae about 310 long, shorter than the tube, which is 395 long (W.b. 145, W.a. 65), without any structure or setulae.

**Dedication.** The new species is dedicated to my good friend Vítězslav Kubáň, of the Department of Entomology, Moravian Museum, who collected Thysanoptera for me during his trips to Indo-Malaysia.

## Acknowledgement

I am very indebted to Dr. Jiří Kolibáč, head of the Department of Entomology, Moravian Museum, Brno, who has been very helpful during the preparation and publication of the present paper. For supplying me with literature I am very thankful to my esteemed colleagues T. N. Ananthakrishnan (New Delhi), J. S. Bhatti (New Delhi), R. Marullo (Potenza), L. A. Mound (London), J. M. Palmer (London) and R. zur Strassen (Frankfurt).

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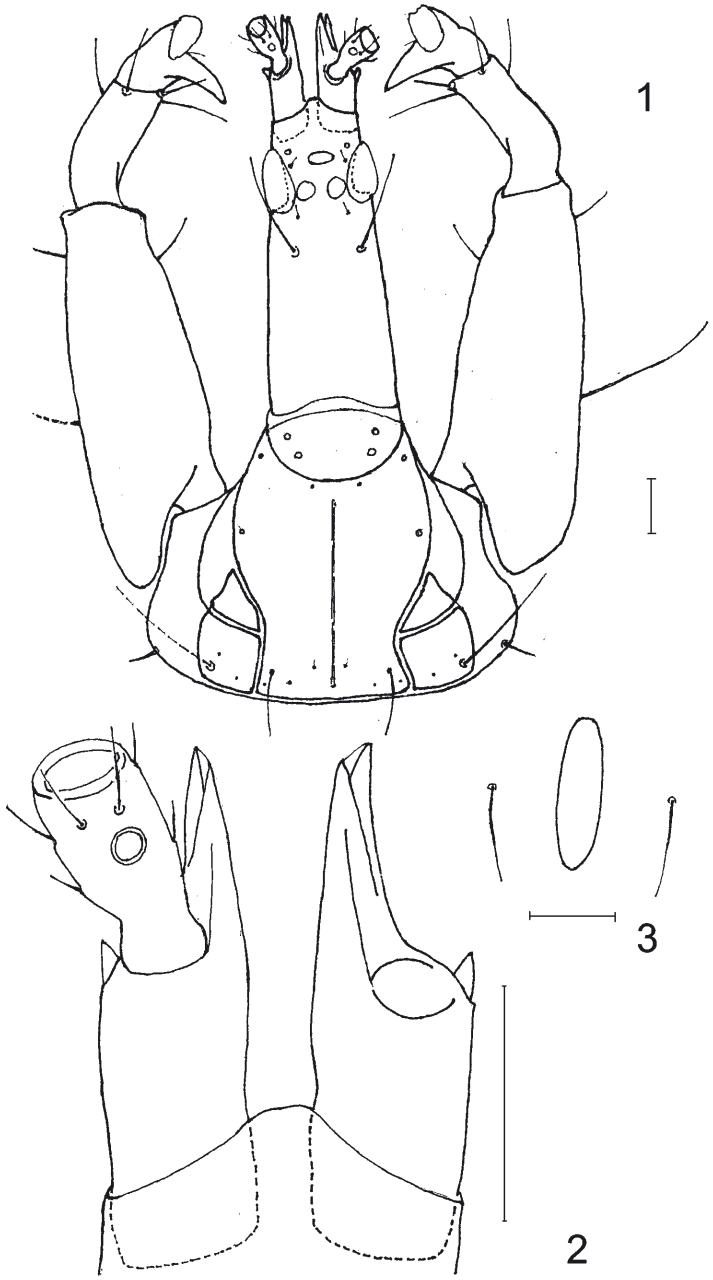


**Figs 1–3.** 1, *Tragothrips kubani* sp.nov., holotype female, prothorax with forelegs; 2, horn-like projections on first antennal segment; 3, central segment of pelta. (Scale = 100 micrometres.)