

Some new or little known genera, subgenera, species and subspecies of Aphididae from India (Homoptera, Aphididae)

by

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(concluded)

Tricaudatus polygoni (Narzykulov, 1953).

NARZYKULOV (1953) described *Rhopalosiphoninus polygoni* and later (1957) erected the genus *Tricaudatus* for this species, which lives in Tadzhikistan on *Spiraea baldshuanica* and *Polygonum bucharicum*.

The junior author found a very similar aphid in India where it lives on *Spiraea corymbosa* and *Polygonum molle*. Material of the Tadzhikistan aphid is not available, but from NARZYKULOV's (1957) figures it appears that the Indian specimens are slightly different in their abdominal processii, and the shape of the siphunculi. Therefore we venture to describe them as a new subspecies, and rather fully, because the Russian descriptions are not easily accessible and do not mention a number of important characters.

Tricaudatus polygoni subsp. *tuberculatus*, nov. subsp.

APTEROUS VIVIPAROUS FEMALE.

Morphological characters. Body oval, about 1.55—1.72 mm long, with hardly sclerotic, very slightly corrugated, pale tergum. Abd. tergite VIII with a short semiglobular or fingertip-shaped scabrous processus, bearing two stiff hairs with incrassate apices; these hairs are about $\frac{2}{3}$ of, to nearly as long as basal diameter of ant. segment III; abd. tergite VII with a hardly elevated median excrescence, sometimes quite flat, with a pair of shorter hairs at the base. Abd. tergites II to V marginally all convex through a rather low processus with a very short blunt hair. Dorsal hairs quite blunt, very short, those on the anterior abd. tergites about $\frac{1}{3}$ — $\frac{1}{2}$ of basal diameter of ant. segment III; abd. tergite VIII with in total 4—6 hairs similar to the pair on the median processus. Head slightly wrinkled frontally, with a well developed median frontal tubercle, with a pair of blunt hairs dorsally and a longer pair ventrally; frontal tubercles not higher than the median process, smooth, each with one hair. Antennae short, up to $\frac{3}{5}$ of length of body, without secondary rhinaria; from quite pale except one or two terminal joints to uniformly brownish; segment III almost smooth, slightly longer than the imbricated processus terminalis; longest hair on segment III hardly $\frac{1}{3}$ of its basal diameter. Eyes normal. Rostrum hardly reaching second coxae; ultimate rostral segment about as long as second joint of hind tarsi, usually with one pair of hairs besides the 3 subapical pairs. Siphunculi pale to mottled brown, with darker very apex, more or less cylindrical on basal $\frac{1}{5}$ — $\frac{1}{3}$ part, with the greatest width at the base, then suddenly expanded, again narrowing gradually to the small but distinct flange; greatest diameter of the siphunculi near the middle, $2\frac{1}{2}$ —4 times the smallest diameter, which is just before the flange; stem and sometimes swollen portion slightly wrinkled; below the flange several transverse

striae. Cauda pale to brownish, more or less bluntly finger-shaped, with 7—12 hairs. Femora smooth, bluntly imbricated dorsally near the apices; tibial hairs short, some few dorsally near base blunt, the rest with acute apices; first tarsal joints with 3,3,3 hairs.

Colour. Body whitish, pale yellow to yellowish green. Antennae pale to brownish, siphunculi pale to brownish, cauda pale.

Measurements in mm.

No.	Length body	Ant.	Ant. segments				Siph.	Cau.
			III	IV	V	VI		
1.	1.72	0.80	0.18	0.12	0.11	(0.09 + 0.17)	0.30	0.17
2.	1.69	0.92	0.22	0.14	0.12	(0.11 + 0.20)	0.33	0.17
3.	1.55	0.87	0.20	0.12	0.12	(0.11 + 0.19)	0.32	0.16
4.	1.68	0.97	0.24	0.16	0.12	(0.12 + 0.20)	0.33	0.14
5.	1.60	0.97	0.25	0.17	0.12	(0.11 + 0.20)	0.35	0.13
6.	1.60	0.87	0.21	0.12	0.12	(0.09 + 0.19)	0.30	0.14

(1—3, on *Spiraea corymbosa*, 9.IV.1957, leg. A. N. BASU; 4—5, on *Polygonum molle*, 11.IV.1957, leg. A. N. BASU; 6, on *Spiraea corymbosa*, 24.V.1958, leg. S. DAS; all from Darjeeling).

LARVAE : The median processi on abd. tergites VII and VIII as in adults. Hind tibiae with many spinules between the hairs.

OVIPAROUS FEMALE.

Morphological characters. Body oval, shorter than in apterae viviparae, about 1.15—1.30 mm long. Head blackish sclerotic; the median frontal prominence less marked than in apterae viviparae; frontal tubercles hardly developed. Antennae blackish brown. Abd. tergum smooth, membranous, with a small spinal sclerite on tergite V in one of the three specimens examined, one or two small spinal sclerites on tergite VI, and a large one with 2 hairs on tergite VII; the spinal sclerite on tergite VIII the largest and darkest, the median processus hardly elevated, almost flat, with two hairs slightly longer than basal diameter of ant. segment III. Marginal convexities brownish sclerotic, rather flat, present on tergites I—IV, each with a small hair. Dorsal hairs longer and more acute than those in apterae viviparae, about as long as basal diameter of ant. segment III; tergite VIII with 12—13 hairs with more or less acute apices. Siphunculi as in apterae viviparae but darker. Cauda blackish sclerotic, short, with 10—12 hairs. Legs blackish brown; hind tibiae incrassate, with about 40—70 small pseudosensoria over nearly the whole length. Other characters as in apterae viviparae.

Colour. Body yellowish green; siphunculi, cauda and the legs blackish brown.

Measurements in mm.

No.	Length body	Ant.	Ant. segments				Siph.	Cau.
			III	IV	V	VI		
1.	1.18	0.54	0.10	0.09	0.08	(0.06 + 0.11)	0.20	0.09
2.	1.36	?	0.12	0.11	0.09	(0.08 + ?)	0.22	0.11
3.	1.31	0.63	0.12	0.09	0.09	(0.08 + 0.14)	0.21	0.09

(1—3, on *Spiraea corymbosa*, 6.I.1958, Darjeeling, leg. S. DAS).

Biology: The species infests the under sides of the leaves of *Polygonum molle*, and the leaves and twigs of *Spiraea corymbosa*. It is much more common on the latter host than on the former. Evidently the species shows host alternation. Ants do not visit this aphid.

Distribution: The species has so far been observed in and around Darjeeling town at altitudes ranging from 6,500—7,000 ft.

DISCUSSION: Our reasons for giving a new subspecific name to our Indian material of *polygoni* are that NARZYKULOV (1957) figures the processi of abd. tergites VII and VIII as being about equally large, while in our material the excrescence on tergite VII is very much smaller. Also the siphunculi in NARZYKULOV's species show a marked constriction below the rather wide flange, while in our material, with more swollen siphunculi, the siphunculi taper very gradually till the small flange.

The position of *Tricaudatus* Narzykulov, 1957, was not indicated by its author. The presence of spinules on the hind tibiae of larvae, the structure of the head, and the primary host plants suggest that the genus is closely related to *Myzus* Pass., 1860. Adult apterae strikingly resemble species of *Cavariella* del Guercio, 1911.

Trichaitophorus Takahashi, 1937.

This genus, erected for *T. aceris* Takahashi, 1937, from Formosa held only one species until in 1961 TAKAHASHI described first *T. albus*, later *T. koyaensis* both from *Acer* in Japan. Of the latter species authentic specimens are available. Of all excellent illustrations by their author exist. It appears that *T. albus* does not belong in *Trichaitophorus*, but in *Nippochaitophorus* Takahashi, 1961, type species *N. moriokaensis* Takahashi, 1961, a very nearly related genus from *Acer*, in which most dorsal hairs are long, and all are knobbed. The described species of *Trichaitophorus* Tak. have 5 antennal segments, but no alatae are known, and only somewhat dwarfed apterae have been described.

The position of *Trichaitophorus* and *Nippochaitophorus* has not been discussed by TAKAHASHI. The general structure of the body, the fused head and pronotum, and the curious marginal body hairs of *Trichaitophorus* suggest relationship to *Thelaxes* Westwood, 1840, but the four rudimentary gonapophyses, the multi-corneal eyes, and the somewhat foliate empodial hairs show that the genus really belongs near *Chaitophorus* Koch, 1854, and *Periphyllus* v. d. Hoeven, 1863. The same holds for *Nippochaitophorus*.

A new species of *Trichaitophorus* discovered in India, makes the following changes in the generic diagnosis necessary: Antennae in apterae viviparae of five or six segments. First tarsal joints with 3—5 hairs, particularly in large specimens on the fore tarsi with 5 hairs.

Trichaitophorus recurvispinus nov. spec.

APTEROUS VIVIPAROUS FEMALE.

Morphological characters. Body rather depressed, oval, about 2.20—2.50 mm long, with the maximum width nearly $\frac{7}{10}$ of the length. Tergum

seemingly membranous, almost colourless to faintly yellowish, marginally more or less corrugated and with rather large flat warts; abd. tergites I to VII fused completely. The thoracic and seven anterior abd. segments with long, very stout hollow, basally constricted, adpressed and backwards directed marginal hairs, with just blunt to acute apices, placed on strong sockets; one pair per segment except on abd. segments VI and VII where there are two on each side placed in tandem; hairs longest on the 4 anterior abd. segments, up to $6-6\frac{1}{2}$ times basal diameter of ant. segment III, shortest and bluntest on the prothorax, up to $3-3\frac{1}{2}$ times that diameter. Front with similar hairs directed forwards and curved inwards; 3—4 on each side; 1—2 pairs anteriorly; two longer and stouter pairs at the same level on tubercles near and higher than the base of ant. segment I of up to 4—5 times basal width of ant. segment III. Dorsal hairs also on vertex in normal number and arrangement, very short, rather thin and blunt, about $\frac{1}{4}$ as long as basal width of ant. segment III. Abd. tergite VIII with 7—9 hairs, 4—6 of which are like the marginal hairs on strong sockets, up to $5-5\frac{1}{4}$ times basal width of ant. segment III. Ventral hairs long and thin with acute apices, up to about twice the said diameter. Head rather as in *Betulaphis* Glendening, the front very slightly convex. Antennae short, usually less than half length of body, pale except the distal portion of segments V and VI, without secondary rhinaria; hairs few, very short and blunt, the longest on segment III less than $\frac{1}{4}$ its basal diameter. Eyes small, of about 20—30 facets, with small but distinct, darkened, triommatidia. Rostrum short, not or just extending beyond the prothorax; ultimate rostral joint rather blunt, about $\frac{3}{4}$ of second joint of hind tarsi, with 2—3 thin hairs besides the 3 subapical pairs. Stigmal plates quite pale with small subcircular pori. Siphunculi almost colourless, short, about $\frac{5}{7}$ times as long as their basal width, truncate, basally more or less corrugated, apically with fine transverse lines, with small flange. Cauda pale, considerably wider than long with a very indistinct basal constriction, with 8—11 curved hairs, 4 of which are conspicuously longer and stouter than the rest. Anal plate entire, rounded. Legs pale except the extreme tips of the tarsi which are dusky; femora and tibiae smooth with on basal half a few very short and blunt hairs like those on dorsum and, sometimes also on basal half, very much longer ones with blunt or acute apices. First tarsal joints with 3 to 5 hairs, those of the hind tarsi possibly always with 3 hairs.

Colour. The flat body pale glassy white with the tips of antennae and legs dusky brown.

Measurements in mm.

No.	Length body	Ant.	Ant. segments				Siph.	Cau.
			III	IV	V	VI		
1.	2.48	1.09	0.34	0.14	0.14	(0.11 + 0.24)	0.09	0.08
2.	2.44	1.18	0.37	0.16	0.16	(0.11 + 0.26)	0.08	0.06
3.	2.49	1.12	0.34	0.16	0.14	(0.12 + 0.23)	0.08	0.04
4.	2.38	1.02	0.31	0.13	0.13	(0.11 + 0.21)	0.08	0.09
5.	2.49	1.14	0.35	0.17	0.14	(0.13 + 0.22)	0.08	0.06
6.	2.48	1.12	0.34	0.16	0.14	(0.11 + 0.24)	0.08	0.06

(1—6, on *Actinidia callosa*?, Darjeeling, 9.IV.1957, leg. A. N. BASU).

LARVAE. Like the adults, with the characteristic set of long marginal and cephalic hairs. Eyes quite small but with more than 3 facets.

Distribution: The species has so far only been observed in Darjeeling at about 6,800 ft, a.s.l.

Biology: This species was found on an unidentified host plant. It lived on the under sides of the leaves which were rolled inwards. It was not attended by ants.

Notes. The new species differs from *T. aceris* and *T. koyaensis* by larger size, six ant. segments, relatively longer processus terminalis, and longer marginal hairs. All these differences may, like the different first tarsal chaetotaxy, be correlative with its greater body size. However, both known species have rather long additional hairs marginally on the pronotum, and rather long hairs on the basal half of the tibiae, whereas in *T. recurvispinus* the additional marginal hair on the pronotum is minute in size and as small as the spinal and pleural hairs, while the tibiae on basal half dorsally have a number of similarly minute and very blunt hairs. The marginal hairs in *T. aceris* are distinctly lanceolate, but those in *T. koyaensis* are similar to those in the new species. TAKAHASHI (1961) figures rugosities on the marginal hairs of *T. koyaensis* and mentions that these hairs are not smooth. However, it would seem from his material that the hairs really are smooth, but occasionally nicked through mounting.

Tuberoaphis hydrangeae subsp. **digitata**, nov. subsp.

FUNDATRIX.

Morphological characters. Body elongated oval, about 1.75—2.14 mm long. Tergum colourless, sclerotic, with areas of rather large (0.016—0.008 mm) papillae, particularly on the anterior half of mesonotum. Dorsal processi numerous, digitiform, covered with warty imbrications; vertex with two small (0.16 mm) processi; pronotum with one pair (0.048—0.112 mm) of spinal processi, one pair (0.046—0.065 mm) of marginal ones, and occasionally one pair (0.016—0.032 mm) of small pleural ones; mesonotum and metanotum each with one pair (0.095—0.144 mm) of spinal processi and one pair (0.096—0.160 mm) of marginal ones, the latter with branched apices; pleural processi usually absent on mesonotum but present (0.032—0.130 mm) on metanotum; abdominal tergites I—IV each with a pair of long (0.120—0.208 mm) spinal processi and a pair of marginal processi which on tergites I—IV are as long as the spinal processi, but on tergite V shorter to much shorter, and on tergite VI about as small as those on vertex; irregularly tergites I—V show one or more pleural processi which are very variable in size but always very much smaller than the spinal processi; tergite VII with small (0.032—0.048 mm) spinal processi and occasionally two flat pleural tubercles; tergite VIII without processi; all the mentioned processi are curved caudad and bear on top a short (0.010—0.017 mm) hair with incrassate apex. Frontal tubercles slightly angular because hairs of 0.016—0.021 mm length on a stout basis are implanted there; segment II very much thinner than segment I, like the inner side of segment I scaly; processus terminalis $1\frac{1}{5}$ — $1\frac{1}{2}$ times as long as the long basal portion of segment VI. Last rostral segment twice as

long as the small second joints of hind tarsi, with 2—4 short hairs besides the 3 subapical pairs. Siphunculi 3— $3\frac{1}{2}$ times as long as cauda, with darkish apices, strongly bluntly imbricated with the very apex smooth. Cauda small and slender, bluntish, with 5 hairs. Legs rather short, tarsi dark brown, the rest not pigmented; first tarsal joints with 3,3,2 hairs, the middle hair of which on fore- and mid-legs is longer than the lateral hairs; empodial hairs nearly as long as the claws.

Colour. Body pale glassy white to pale yellowish green. Antennae and siphunculi basally pale whitish, distally dusky brown. Legs pale except at the tips.

No.	Length body	Ant.	Ant. segments				Siph.	Cau.
			III	IV	V	VI		
1.	1.81	1.00	0.29	0.16	0.15	(0.12 + 0.15)	0.38	0.14
2.	1.76	1.29	0.35	0.21	0.19	(0.15 + 0.23)	0.51	0.14
3.	1.90	1.29	0.36	0.20	0.19	(0.16 + 0.22)	0.56	0.15
4.	1.77	1.24	0.35	0.20	0.19	(0.16 + 0.19)	0.47	0.15
5.	1.86	1.16	0.33	0.19	0.18	(0.14 + 0.17)	0.50	0.15
6.	1.88	1.15	0.34	0.18	0.17	(0.13 + 0.17)	0.48	0.16
7.	1.93	1.28	0.35	0.20	0.17	(0.14 + 0.22)	0.52	0.16
8.	1.96	1.31	0.33	0.20	0.19	(0.16 + 0.24)	0.54	0.14
9.	2.14	1.30	0.33	0.20	0.19	(0.16 + 0.20)	0.51	0.16
10.	2.06	1.32	0.36	0.22	0.19	(0.16 + 0.22)	0.59	0.17

(1—10, on *Hydrangea robusta*, Darjeeling, 9.IV.1957, leg. A. N. BASU).

APTEROUS VIVIPAROUS FEMALE.

Morphological characters. Body spindle-shaped, about 1.45—1.63 mm long. Tergum colourless, sclerotic, wrinkled and locally warty. Dorsal processi as in the fundatrices but their number and size reduced; vertex without processi; pronotum spinally, occasionally also marginally, with two flat, spinal tubercle-like structures (0.016—0.032 mm); mesonotum and metanotum each with one pair (0.048—0.112 mm) of spinal processi and one pair (0.024—0.080 mm) of marginal ones, the latter usually bifid at apex; abdominal tergites I—VI each with a pair of long (0.048—0.130 mm), and tergite VII with a pair of quite short (0.016—0.024 mm) spinal processi; marginal processi (0.032—0.130 mm) always present on tergites I—IV, and occasionally also much shorter ones (0.016—0.032 mm) on tergite V; tergite VIII without processi. Head smooth; frontal tubercles diverging, each bearing on their inner side a hair which, including the stout base, is about 0.014—0.021 mm long. Antennae about $\frac{2}{3}$ — $\frac{3}{4}$ times as long as body, with the apices of segment III and the remainder of the flagellum appreciably darker than the pale brown basal segments; flagellum progressively imbricated from base towards the apex; processus terminalis $\frac{17}{10}$ — $\frac{21}{3}$ times as long as base of segment VI. Rostrum reaches to the third pair of coxae; ultimate segment about twice as long as the rather small second joints of hind tarsi, with 2 pairs of small hairs besides the preapical ones. Eyes rather small, without apparent triommatidia. Siphunculi pale, with the very tip dusky, elongated, slightly curved, about $\frac{1}{4}$ — $\frac{1}{3}$ of body, widest at base and then almost cylindrical, coarsely imbricated, except a small area before the well developed flange. Cauda pale to dusky, with 2 pairs of lateral hairs and a preapical median one. Legs pale brown with the tarsi darker; first tarsal joints with 3, 3, 2 hairs.

Colour. Body pale glassy white to pale yellow. Antennae pale with the distal portion dusky.

Measurements in mm.

No.	Length body	Ant.	Ant. segments				Siph.	Cau.
			III	IV	V	VI		
1.	1.62	1.08	0.32	0.16	0.14	(0.11 + 0.19)	0.45	0.13
2.	1.57	1.09	0.32	0.17	0.16	(0.19 + 0.21)	0.45	0.13
3.	1.45	1.10	0.30	0.19	0.16	(0.11 + 0.21)	0.49	0.13
4.	1.49	1.02	0.25	0.16	0.15	(0.09 + 0.22)	0.41	0.13
5	1.64	0.88	0.26	0.12	0.12	(0.09 + 0.18)	0.33	0.14
6.	1.59	1.11	0.29	0.17	0.16	(0.12 + 0.23)	0.43	0.13

(1—6, on *Hydrangea robusta*, Darjeeling, 30.V.1964, leg. A. K. BOSE).

ALATE VIVIPAROUS FEMALE.

Morphological characters. Body about 1.50—1.80 mm long. Head and thorax blackish sclerotic; abdomen pale with small blackish marginal sclerites and a trapezoidal central sclerite on the anterior margin of which the spinal hairs of abdominal tergite III are placed, while those of tergite VI are placed on the posterior margin; post-siphuncular sclerites very well developed; tergum smooth with some imbrications on the marginal sclerites, but mesosternum with small warts. Dorsal processi reduced to mammiform structures, up to about 0.024 mm long; spinal processi variably present on tergites I—VI, usually in complete pairs on tergites V and VI, but often altogether absent or only on one side on other tergites; tergite IV usually with a pair of marginal processi. Dorsal hairs fine and acute, on small sockets, about 0.016 mm long. Antennae black, slightly shorter to just longer than body; segment III with some 25—35 hardly tubercular rhinaria over the entire length, covering about $\frac{2}{3}$ of its circumference; IV with 6—11 rhinaria arranged more or less in a line over the entire length of the segment; V with 0—3 rhinaria on basal half. Wings with normal venation. Siphunculi black, hardly or not imbricated. Cauda rather pale, with usually 5, but in one available specimen with 6 hairs. Legs brown with distal half of femora, bases and apices of tibiae and tarsi darker.

Colour. Head and thorax blackish, abdomen yellowish white with the abdominal sclerites dark. Legs pale except at the tips.

Measurements in mm and number of rhinaria.

No.	Length body	Ant.	Ant. segments				Siph.	Cau.	Rhin. on segment		
			III	IV	V	VI			III	IV	V
1.	1.57	1.52	0.42	0.25	0.22	(0.16 + 0.32)	0.33	0.09	25 & 27	9 & 11	2 & 1
2.	1.52	1.55	0.46	0.23	0.23	(0.16 + 0.32)	0.32	0.09	28 & 29	9 & 10	1 & 0
3.	1.69	1.58	0.43	0.28	0.22	(0.17 + 0.33)	0.35	0.11	28 & 28	11 & 11	1 & 3
4.	1.65	1.54	0.48	0.24	0.21	(0.14 + 0.33)	0.32	0.09	24 & 25	9 & 6	1 & 0
5.	1.60	1.50	0.43	0.25	0.21	(0.16 + 0.32)	0.33	0.10	27 & 26	7 & 8	1 & 1
6.	1.74	1.53	0.45	0.26	0.22	(0.16 + 0.30)	0.35	0.11	33 & 31	9 & 8	1 & 0

(1—6, on *Hydrangea robusta*, Darjeeling, 28.V.1960, leg. A. N. BASU).

LARVAE. With dorsal processi like the adult apterae. Hind tibiae without spinules or nodules.

Distribution: The species has hitherto been collected only from Darjeeling.

Biology. The species infests the underside of the leaves of its host, *Hydrangea robusta*. Infestation was found to be quite heavy during the last week of May, causing slight withering of the leaves. The alatae were as numerous as the summer apterae during that period. Apterae collected from the same host and locality during early April we describe as fundatrices, since they have a much larger body, longer processi and a shorter processus terminalis. Field records suggest that the species migrates to some other host or hosts before the advent of the rainy season which starts by the middle of June.

DISCUSSION: Although we had no access to the type material of *T. hydrangeae* Tseng & Tao, the type species of *Tuberoaphis* Tseng & Tao, 1938, we venture to described the aphids from Darjeeling as a new subspecies. TSENG & TAO (1938) describe the longest of the dorsal processi as being 0.051 mm long. But in our summer apterae the processi are up to 0.130 mm long and very much more slender in shape than figure 5 in TSENG & TAO's paper indicates for their species.

The generic diagnosis of *Tuberoaphis* can be extended as follows. Eyes also in alatae without discernible triommatidia. Abdominal dorsum in alatae with a central sclerite, with few very short mammiform processi. First tarsal joint with 3, 3, 2 hairs. Larvae without spinules between the hairs of the hind tibiae.

The genus resembles *Matsumuraja* Schumacher, 1921 but it lacks the fingerlike processi on the first antennal segments, it has in apterae branched lateral processi on the meso- and metathorax, and its larvae have no spinules on the hind tibiae. The abdominal sclerotization of apterae and the central sclerite in alatae suggest relationship to *Chaetosiphon* Mordv., 1914.

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***Tuberolachnus* (*Tuberolachniella*) *sclerata*, nov. subgen. et nov. spec.**

APTEROUS VIVIPAROUS FEMALE.

Morphological characters. Body thickly pear-shaped to oval, about 4 to 5.25 mm long, with the greatest width, 2.3 to 3 mm, near the siphunculi. Tergum more or less sclerotic, brown to blackish, with very small, blackish intersegmental sclerites and large, black stigmal plates, marginally reticulated, and with a great number of very small isolated sclerites each bearing one hair. Tergite IV with a very conspicuous, reddish-brown to blackish, very broadly pyramidal to rather rounded spinal processus, which at base is about 1.2 to 1.7 times as broad as the length of ant. segment III, but not higher than $\frac{2}{5}$ — $\frac{1}{2}$ the length of that antennal segment. Dorsal hairs very numerous, at mutual distances of about 0.025—0.030 mm, with normal fine apices; longest hairs on head about 2 tot 2.4 times as long as basal diameter of ant. segment III, those on anterior abd. tergites about 2 to 2.8 times as long as the mentioned diameter. Head reddish brown, with distinct median suture. Antennae about 0.35 to 0.4 times as long as body, yellowish brown to brown with the basal segments darker, to black with only the basal part of segment III brownish yellow; secondary rhinaria usually absent on III, only one specimen shows 3 and 4 rhinaria on that segment; segment IV with 1 tot 5 rhinaria, rarely absent on one side; antennal hairs spiny, the longest on seg-

ment III nearly 1.1 to 1.5 times as long as basal diameter of the segment. Eyes large, with small, but distinct ocular tubercle. Ultimate rostral segment short, tapering; segments IV + V about 0.60 to 0.66 times as long as second joint of hind tarsi, segment IV about 2.4 to 3 times as long as segment V. No mesosternal process present. Siphuncular cones reddish brown to blackish, not clearly bordered, at base about $1\frac{1}{2}$ times as wide as the length of ant. segment III, darker than the rest. Cauda blackish, semilunar, with many long hairs. Legs brownish yellow to pale brown, with the apices of femora and the entire tibiae reddish brown to completely black; tarsi slightly paler than tibiae, the first joints with some 20 ventral hairs.

Colour. Body and legs blackish.

Measurements in mm and number of rhinaria.

	Length body	Ant. III	Ant. segments III	IV	V	VI	Rhin. on III	IV
1.	4.01	1.60	0.64	0.24	0.22	(0.16 + 0.06)	3 & 4	4 & 4
2.	4.84	1.73	0.72	0.28	0.24	(0.14 + 0.05)	0 & 0	2 & ?
3.	4.22	1.64	0.65	0.25	0.24	(0.17 + 0.05)	0 & 0	2 & 1
4.	4.25	1.64	0.65	0.27	0.24	(0.14 + 0.08)	0 & 0	3 & 5
5.	4.78	1.88	0.78	0.27	0.28	(0.12 + 0.07)	0 & 0	3 & 0
6.	5.21	1.91	0.78	0.29	0.30	(0.19 + 0.06)	0 & 0	3 & 4

(1—4, on *Eriobotrya petiolata*, Darjeeling, 2.VI.1957, leg. A. N. BASU; 5—6, on the same host, Darjeeling, 26.V.1958, leg. S. DAS).

Host plant: *Eriobotrya petiolata*.

Distribution: The species has so far been observed only in Darjeeling at an altitude of about 6,900 ft.

Biology: The species forms large colonies on the under side of the leaves, petioles and the young shoots of its host. On leaves, the individuals arrange themselves in lines on both sides of the midrib and other large veins. Injury to the host plant is apparently mild and restricted to slight withering of the leaves. The species is fairly common in Darjeeling during May and June.

DISCUSSION: Morphologically the new species rather closely resembles *T. salignus* (Gmelin, 1790), but its rather sclerotic tergum and the shape of the dorsal processus, which is much wider than high and lower, exclude confusion of cleared apterae. All morphs can easily be separated from *salignus* by the different shape of the last rostral segment; in *sclerata* this is subdivided into a IVth and a short Vth segment, the latter about 0.052 mm wide and 0.074 mm long; but in *salignus* the comparable structure is 0.060 mm wide and 0.043 mm long.

Because of the sclerotic tergum in apterae we erect a separate subgenus, *Tubero-lachniella* nov. subgen., subgenus of *Tubero-lachnus* Mordvilko, 1909, with as type-species *T. (T.) sclerata* nov. spec.

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HORION, Ad., Faunistik der mitteleuropäischen Käfer, Band X, XV + 335 p., Ueberlingen, 1965.

Het tiende deel van deze Faunistik behandelt het vervolg der Staphyliniden, vanaf *Paederus* tot en met *Atanygnathus*. Van de grotere genera zijn hier dus o.a. *Lathrobium*, *Xantholinus*, *Philonthus*, *Staphylinus* en *Quedius* aan de beurt gekomen.

De faunistische gegevens zijn als gewoonlijk zeer uitvoerig, de ecologische gelukkig weer zeer talrijk. Deze laatste soms zeer opvallend voor onze eigen fauna: men leest b.v. bij *Staphylinus ater* Grav. „Meist in der Nähe von Häusern, die Art hat einen ausgeprägten synanthropen Charakter“. Even verder vermeldt de auteur toch ook het bij ons zo karakteristieke voorkomen „an den Küsten aus faulendem Tang“. Van enige neiging tot synanthropie is bij deze soort in ons land maar weinig te merken. Eerder zou men geneigd zijn het tegendeel aan te nemen, zij loopt dikwijls in de meest verlaten oorden aan de kust, de schorren, levendig in de zonneschijn rond.

De schrijver wijdt een uitvoerige beschouwing aan onze grootste en mooiste Staphylinide *Emus birtus* L. Daarin ziet hij een „Wanderkäfer“, een soort dus die eigenlijk bij ons niet inheems is, doch die elk jaar, als bij de trekvlinders, vanuit haar eigenlijke patria naar ons komt toegevlogen. Warmtejaren zouden in het bijzonder gunstig zijn voor het optreden van deze soort in onze streken. Maar het voorjaar van 1965 was toch wel uitzonderlijk koud en nat en toch werd *Emus* tijdens de mei-excursie van de N.E.V. op Schouwen in een veeweide gevonden, zij het dan slechts één exemplaar. De auteur meent dat de soort eigenlijk thuis hoort in zuidoostelijk Midden-Europa en van daaruit telkens opnieuw onze streken bevolkt. Merkwaardig is het dan dat *Emus* zo vaak en in zulke grote aantallen aan de kust gevangen werd (Walcheren en Texel b.v.), terwijl de vondsten in ons binnenland toch veel geringer zijn. Dat *Emus* een uitstekende vlieger is staat vast en waarschijnlijk zullen we HORION's hypothese zo moeten interpreteren, dat onze „voorraad“ inderdaad in warmtejaren wordt aangevuld vanuit zuidelijker streken. Maar het ontbreken van een soort in bepaalde jaren kan m.i. niet tot de gevolgtrekking leiden dat zo'n soort niet autochthoon zou zijn. Dan zouden we vele soorten moeten schrappen.

Alleen reeds de twee bovenvermelde, tot tegenspraak prikkelende gevallen tonen aan hoe ingewikkeld de zaken soms liggen en hoe belangrijk HORION's levenswerk voor de Europese