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**The genus *Acanthothereva* SÉGUY, 1935,
with description of a new species from Algeria**
(Diptera, Therevidae)

by

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SÉGUY (1935) erected a new genus, *Acanthothereva*¹, for a new species, *A. Rungsi*, from Morocco. The original material included two specimens, both of which I have been able to study through the kindness of Dr. L. Tsacas of the Paris museum. The specimen labelled "Type" originates from Rose Marie, 28 Sept. 1934, Coll. RUNGS. SÉGUY also mentions a specimen from Mehedyia, 30 July 1935, Coll. RUNGS. This latter specimen bears a label of "*Acanthothereva Rungsi* SÉGUY ? Ch. Rungs det.". It is obvious that SÉGUY has not seen this specimen when describing his species but only has got information on its capture from Mr. Rungs. Both specimens were collected in dunes, the specimen from Mehedyia was caught at light when trapping Lepidoptera.

In some Therevid-material received from Dr. J. AUBERT of Lausanne, Switzerland, was a single specimen of an undescribed species from Algeria, which it is reasonable to place in the same genus. Unfortunately, both species are hitherto only known in the male sex. The species are, with their pale appearance and mottled wings, typical "desert-species", and they have a number of characters in common. Some of these may be termed apomorphic, as summarized in the following :

1. The eyes are separated by a very broad frontal stripe. Its width equals more than one-third of the total width of the head. Though a character such as separated eyes in the male sex is no doubt plesiomorphic in other parts of the family, there is much evidence for the fact that it here occurs as an apomorph character, i.e., that a common ancestor has had the eyes touching as in *Thereva* LATR. and other related genera.

2. The ocellar tubercle is not prominent and well-defined, but the entire upper part of the frons is elevated and covered with long pubescence.

¹ The spelling *Acantothereva* in SÉGUY's paper is evidently a lapsus calami.

3. The ocelli are extraordinarily widely separated and the dorsal pair is directed more or less distinctly towards the rear.

4. The antennae have a very low insertion, i.e., on the lower third of the head.

5. The wings have spots formed by dark microtrichia.

6. The front tibiae gradually widen towards the tip.

7. The non-apical setae of the tarsi are elongated.

8. The claws and pulvilli are small.

9. The terminalia are of a generalized type (cf. LYNEBORG, 1968), but the stout phallus, and the comparatively small dorsal, ventral and ejaculatory apodemes may be termed apomorph characters.

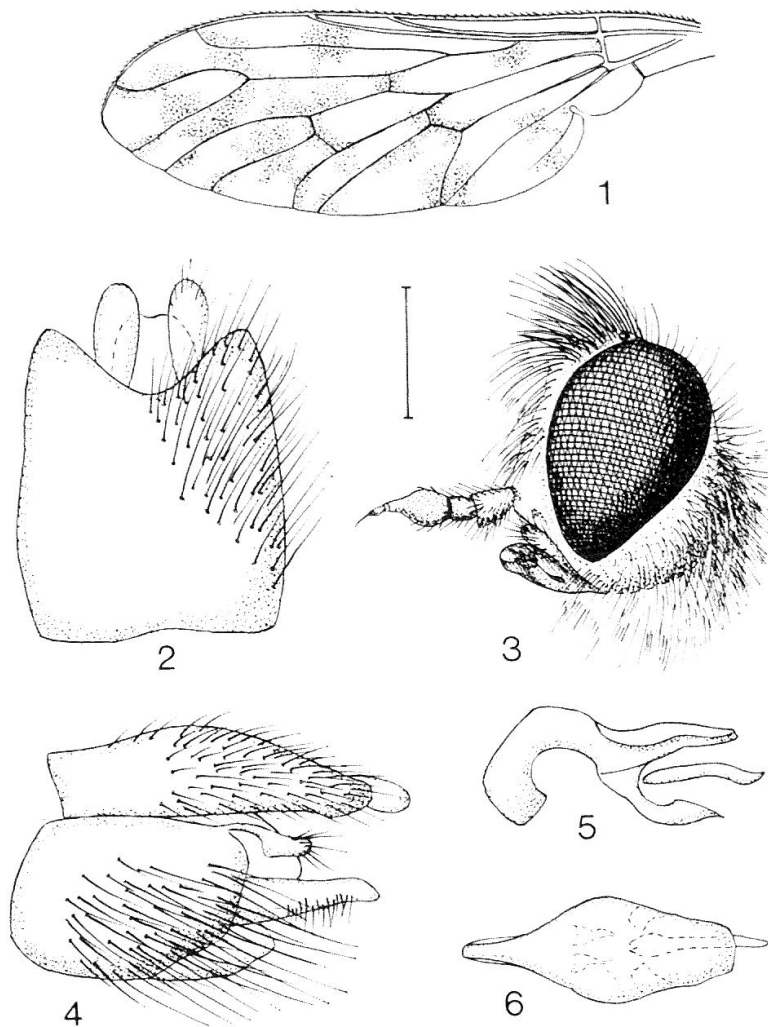
Each of the two species involved further has apomorph characters which is not found in the other species. *A. rungsi* SÉGUY shows a very peculiar formation of the front and middle coxae. These are shorter and broader than is usual in Therevidae, and form four cushions ventrally. The cushions are closely set with numerous moderately long, but strong, whitish spines. The coxae are of normal shape and with soft pubescence and a few setae near hind margin in *A. punctipennis* n. sp. and in all other therevids hitherto seen by the present author. The direction towards the rear of the upper ocelli is also more marked in *rungsii* than in *punctipennis*. On the other hand, *punctipennis* has an apomorph character which is not found in *rungsii*. The scutellum of *punctipennis* shows along its hind margin a band of elongated hairs, and at the same time the lateral pair of scutellar setae is reduced. In *rungsii* the scutellum is quite "normal", with short pubescence and two pairs of scutellar setae. It thus seems that *rungsii* and *punctipennis* represent a fine illustration of a pair of sister-species, each characterized by apomorph characters. It is, however, impossible at the present time to give informations on the sister-group to *Acanthothereva*.

Both species are described in the following. The measurements given are all exact, 100 units being equal to 1 mm. The terms used for the descriptions of the terminalia are in accordance with those used in an earlier paper (LYNEBORG, 1968).

Redescription of the holotype of *Acanthothereva rungsii* SÉGUY, 1935. (Figs. 1-6)

Male. Length. Total : 6.2 mm.

Head. Length 85, height 100, width 140. Eye : length 60, height 90. Gena 10, frontal protuberance 10, occipital protuberance 15. Antennal insertion 70 : 30. Width of frons at level of upper ocelli 45, and at level of antennae 60. Antennae : first joint 20 : 17, second joint 7 : 12, third joint 21 : 15. Style 12, two-jointed with apical spine. Proboscis reaches to level of antennal bases. Palpi of nearly same length as proboscis, not



Figs. 1-6. *Acanthothereva rungsi* SÉGUY, holotype, male. — 1. Wing. — 2. Tergite 9, or epandrium, in dorsal view. — 3. Head in profile. — 4. Terminalia in profile. — 5. Aedeagus in lateral view. — 6. Aedeagus in dorsal view. Scale: 1 mm for fig. 1, 0.5 mm for fig. 3, 0.25 mm for the rest.

pointed. Both structures whitish pubescent. Ocellar tubercle not prominent, the ocelli being widely separated from each other, but not from eye margin. Distance between outer margins of upper ocelli 35, and distance from outer margin to eye-margin 5. The two upper ocelli are situated on hind part of the somewhat elevated upper half of the frons, thus directed towards the rear. This upper half of frons is yellowish dusted and bears long, erected, yellowish hairs. Rest of head whitish dusted and long whitish pubescent. The short lateral parts of face are bare and yellowish-brown. Only 5-6 postocular setae, all whitish. Antennae yellowish-white and with whitish pubescence.

Thorax. Mesonotum: length 140, width 125. 3n, 1 sa, 1 pa setae, all of which are yellowish. 2 pairs of dc setae are present. Mesonotum

is discoloured, wherefore pattern cannot be stated ; its pubescence long and yellowish. Scutellum : length 40, width 80. It is yellowish-white with whitish pubescence, 2 pairs of yellowish setae. Pleura whitish with whitish pubescence.

Wing. Length (from basal cross-vein to tip) 375, width 150. Basal vein of discal cell oblique (i.e. its prolongation crosses hind wing-margin nearer to apex of m_{3+4} than to apex of $cu_1 + a_1$). Cell M_3 open. Vein r_4 S-curved. Cell R_4 with an index of 115 : 50. Vein r_1 bare. Ground colour whitish-yellow with pattern of brownish spots and bands (due to dark microtrichia) as shown in fig. 1. A stigma is not distinct, and the veins are predominately yellowish, only blackish in the brownish spots. Halteres with yellowish-white knobs.

Legs. Cx_1 and Cx_2 with a dense cover of moderately long, whitish spines. Cx_3 with a few similar setae along hind margin. f_1 with 3 va setae, f_2 without setae, f_3 with 6-7 av setae. t_1 with 4-6 ad, pd and pv setae, all of which are longer than width of t_1 . Length of t_1 125, width 12-15, gradually wider towards apex. t_2 and t_3 with rows of long ad, pd, av and pv setae, of which the pv rows have fewest setae. All setae of femora and tibiae are yellowish. Coxae whitish-grey. Femora and tibiae yellowish with slight whitish dust on the femora. Their pubescence whitish. All tibiae are darkened at tips, and also the tarsi are predominately dark, the metatarsi yet yellowish in basal parts. The setae of the tarsi are dark and long, also the non-apical setae. Claws and pulvilli small.

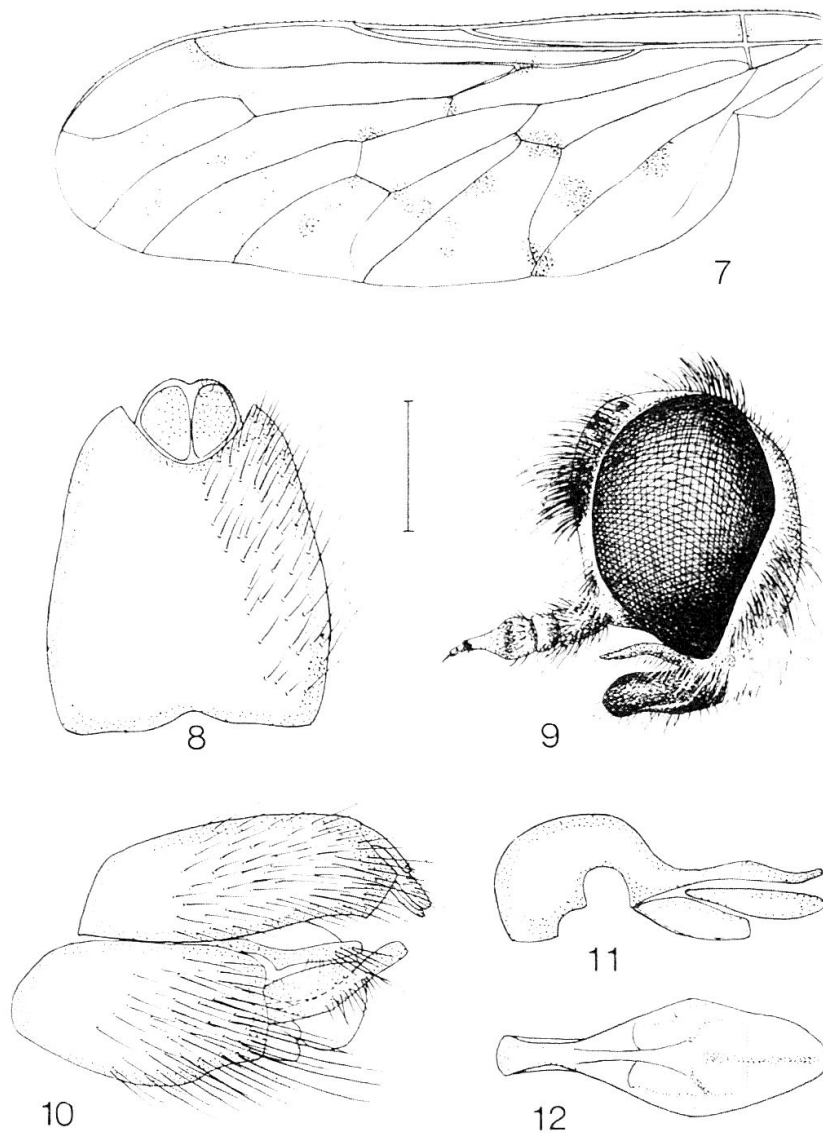
Abdomen. Length 350, width 120. Shape depressed. Tergites yellowish with paler hind marginal hems ; laterally with whitish dust. Sternites brownish, being gradually darker towards tip of abdomen. Pubescence of abdomen all whitish to yellowish.

Terminalia. Yellowish-brown with brownish pubescence. Epanandrium (Fig. 2) about as broad as long in mid-line, with a small incision in fore margin and a larger in hind margin. Seen laterally (Fig. 4) the epanandrium greatly overhangs the hind margin of the gonocoxite. The free end of the gonapophysis, the stylus, and the ventral lobe all project greatly from the hind margin of the gonocoxite. The two gonocoxites are separated ventrally. A very small, narrow sclerite representing the hypandrium is visible. The ventral lobe has the form of a low, broad lobe. The cerci and paraprocts slightly overhang the hind margin of epanandrium, being of nearly equal length. The cerci are separated, the paraprocts fused. Aedeagus free. The phallus is very wide seen laterally (Fig. 5) and curves twice for about 90° . In a dorsal view (Fig. 6) it is broad proximally, being gradually narrower. The dorsal apodeme is short and broad with two ridges ; its distal end broadly rounded. The ventral apodeme is formed as a broad trough-shaped sclerite. The ejaculatory apodeme is a narrow stick, the distal end of which is pointed and downcurved.

***Acanthothereva punctipennis* n. sp.** (Figs. 7-12)

Male. Length. Total : 6.5 mm.

Head. Length 85, height 110, width 165. Eye : length 70, height 105. Gena 5, frontal protuberance 5, occipital protuberance 10. Antennal insertion 85 : 25. Width of frons at level of upper ocelli 70, and at level of antennae 70. The frontal margins slightly concave between the two levels of measurements. Antennae : first joint 20 : 17, second joint



Figs. 7-12. *Acanthothereva punctipennis* n. sp., holotype, male. — 7. Wing. — 8. Tergite 9, or epandrium, in dorsal view. — 9. Head in profile. — 10. Terminalia in profile. — 11. Aedeagus in lateral view. — 12. Aedeagus in dorsal view. Scale : 1 mm for fig. 7, 0.5 mm for fig. 9, 0.25 mm for the rest.

9 : 15, third joint 25 : 18, suddenly constricted about middle. Style 10, two-jointed with apical spine. Proboscis reaches to level of antennal bases. Palpi of nearly same length as proboscis, and pointed. Both structures whitish pubescent. Ocellar tubercle not prominent, the ocelli being widely separated both from each other and from eye-margin. Distance between outer margins of upper ocelli 35, and distance from outer margin to eye-margin 20. Upper two thirds of frons somewhat elevated, and covered with dense and long, erect, stiff, yellowish-brown hairs. The toment of this area is brownish-grey, but dull blackish in a wedge along eye-margin. Lower third of frons greyish dusted and provided with shorter and softer, whitish pubescence. The face is short, dull brownish and bare. Gena and lower half of occiput whitish-grey and with long, whitish pubescence. Upper half of occiput with yellowish-grey dust and long and rather stiff, yellowish pubescence. Only 4-5 postocular setae which are yellowish. Antennae yellowish, first joint whitish dusted, third joint darkened towards tip. First joint with some dark setae ventrally, otherwise with whitish hairs.

Thorax. Mesonotum : length 175, width 150. 3n, 1 sa, 1 pa setae, all of which are yellowish. dc setae not distinct, as pubescence of dorso-central stripes is elongated. Mesonotum is discoloured, wherefore pattern cannot be stated ; its pubescence very long and yellowish. Scutellum : length 40, width 80. Dorsally along its hind margin a band of elongated yellowish hairs, the rest with whitish and shorter pubescence. Only one pair of yellowish setae present. Pleura whitish-grey with whitish pubescence.

Wing. Length 550, width 210. Basal vein of discal cell oblique. Cell M_3 narrowly open. Vein r_4 S-curved. Cell R_4 with an index of 160 : 75. Vein r_1 bare. Ground colour whitish yellow with pattern of small, dark brownish spots as shown in fig. 7. A stigma is not distinct, and the veins are predominately yellowish, only blackish in the brownish spots. Halteres with yellowish-white knobs.

Legs. Cx_1 with 1 seta, Cx_2 with 2 setae, Cx_3 without setae. f_1 with 1-2 av setae around middle, f_2 without setae, f_3 with 6-8 av setae. t_1 with 2-3 ad, pd and pv setae, most of which are longer than width of t_1 . Length of t_1 150, width about 20, gradually wider towards apex. t_2 and t_3 with rows of long ad, pd, av and pv setae, of which the pv rows have fewest setae. All setae of coxae, femora and tibiae yellowish. Coxae whitish-grey. Femora have a yellowish-brown coloration and are whitish-grey dusted, mainly dorsally. All hairs whitish, those on dorsal surfaces scaly. Tibiae pale yellowish with darkened tips. Tarsi mainly dark brownish, the non-apical setae are less elongated. Claws and pulvilli small.

Abdomen. Length 375, width 150. Shape depressed. Tergites mostly yellowish-grey, along lateral margin whitish-grey, the limit being well marked. Sternites yellowish-brown with slight dust ; pubescence exclusively whitish.

Terminalia. Yellowish-brown with brownish pubescence. Epan-drium (Fig. 8) about as broad as long in mid-line, with a small incision in fore margin and a larger in hind margin. Seen laterally (Fig. 10) the epan-drium greatly overhangs the hind margin of the gonocoxite. The free end of the gonapophysis is very long, and it projects greatly from the hind margin of the gonocoxite. So does the stylus, whereas the ventral lobe is less conspicuous. The two gonocoxites are separated ventrally. A very small and narrow hypandrium is present. The ventral lobe has the form of a low, broad lobe. The cerci and paraprocts slightly overhang the hind margin of epan-drium, being of nearly equal length. The cerci are separated, the paraprocts fused. Aedeagus free. The phallus has in a lateral view (Fig. 11) a bulbous shape, the dorsal margin forming a curve for nearly 180° . In the distal end the phallus is broadly truncate, more proximally on ventral side with a concave curve in which the sperm-tube ends. In dorsal view (Fig. 12) the phallus is broad proximally and gradually narrowing, then widening a little towards distal end. The ventral apodeme is short and nearly rectangular. The ejaculatory apodeme seen laterally high, seen dorsally narrow.

Holotype : ♂, Algeria, Ain el Turk, 28 March 1950, J. AUBERT. Deposited in Musée zoologique, Lausanne, Switzerland.

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