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## On Some African Species of *Empoasca* WALSH and *Jacobiasca* DWOR.

(Homoptera, Auchenorrhyncha, Cicadellidae)

With 99 figures

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The base of this work are materials belonging to several collections mentioned below. At descriptions of the new species the owner of the holotype takes the first place.

USNM — United States National Museum in Washington  
T — Musee Royal d'Afrique Centrale in Tervuren (Belgium)  
ISEZ — Institute of Systematic and Experimental Zoology, Polish Academy of Sciences in Kraków  
MM — Moravian Museum in Brno (Czechoslovakia)  
BM — British Museum (Natural History) in London  
RL — Collection of Dr. R. LINNAUORI in Raisio (Finland).

### Group of *Empoasca signata* HPT

#### *Empoasca usata* sp. n. (Figs. 1–7)

Ground greenish-yellow. Vertex bluntly produced in the middle. Eyes greyish-brown, ocelli greyish. Whitish markings not visible. Some yellowish irregularly shaped patches on pronotum at the level of eyes. Tip of vertex and upper part of frons ochraceous-yellow. Fore wing more greenish than ground of thorax, its tip part semivitreous, veins greenish. Length: ♂ 2.85 mm.

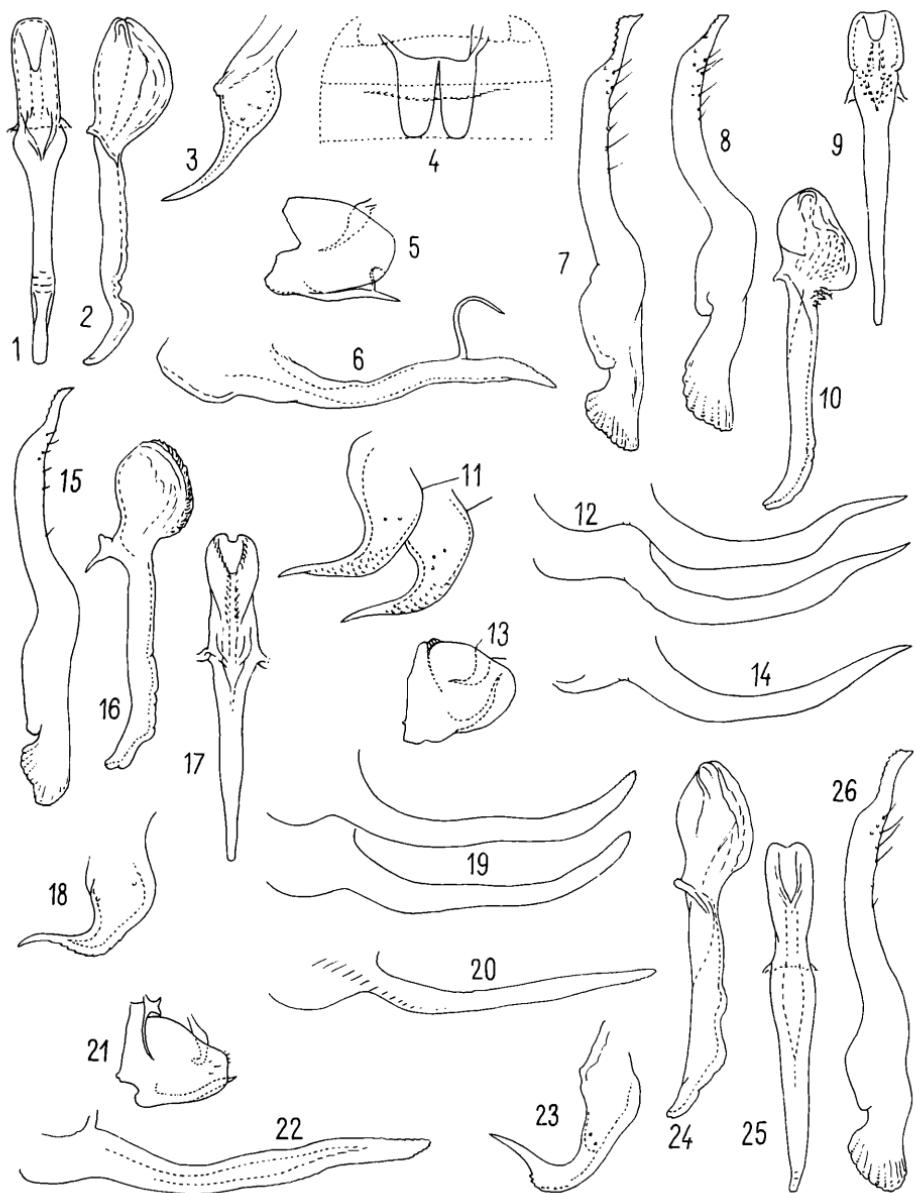
Holotype male Sudan, Equatoria, Yubo, Sources, May 8, 1948, night trap. (USNM)

#### *Empoasca yubocola* sp. n. (Figs. 8–14)

Body slim. Vertex in the midlength a half longer than at eyes. Eyes brown. Ground yellow-green, shining. Fore wing light, darker at the base and on clavus. Passing vertex to face ochraceous. Yellowish hypodermal pattern consists of a narrow streak at coronal suture, two short oblique streaks on sides of vertex, wide and short patches at anterior margin of pronotum, wide central stripe and two small triangles on sides of scutum and transverse fascia at the anterior margin and two triangles on sides of scutellum.

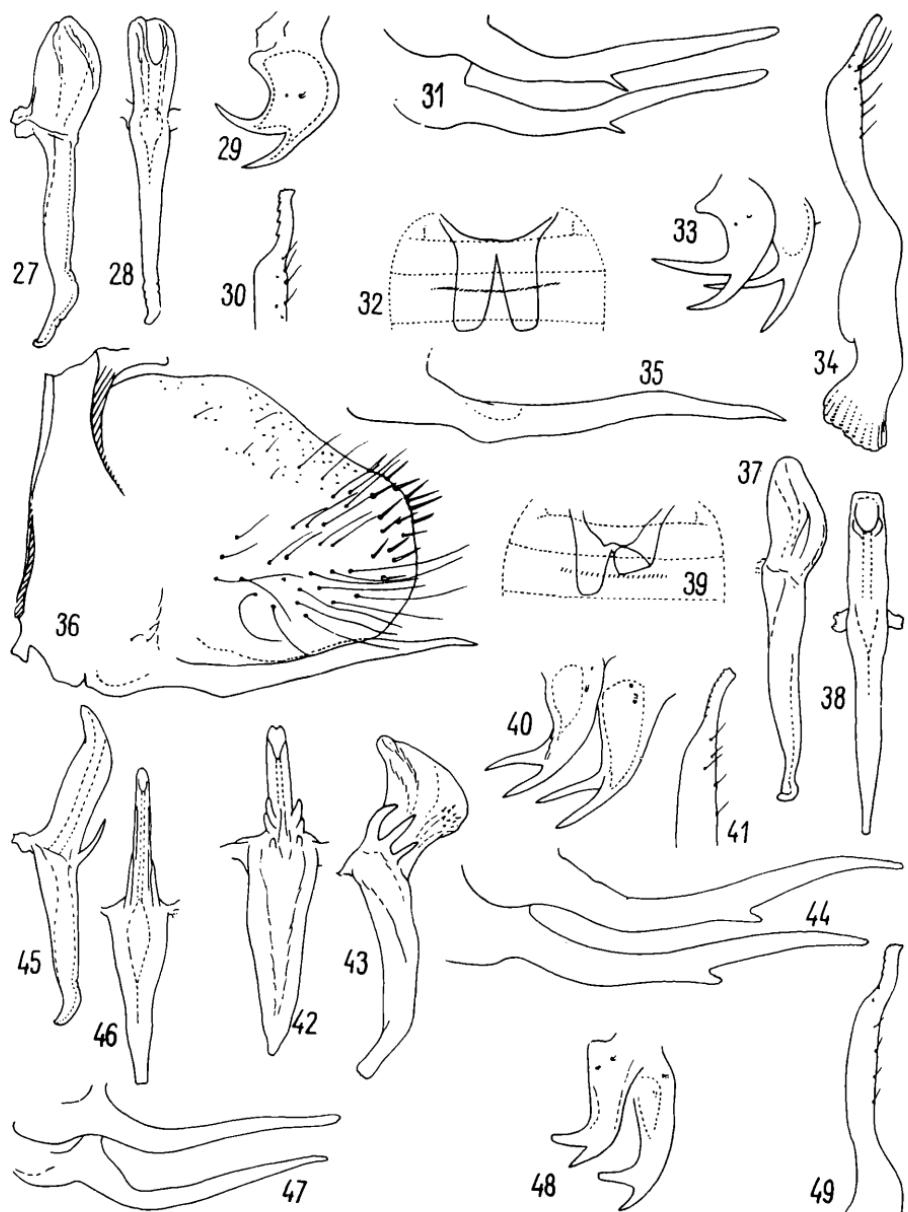
Length: ♂ 2.80 mm.

Holotype, male, and paratype ♂ Sudan, Equatoria, Yubo, Sources, May 8, 1948, night trap. (USNM)



Figs. 1-26.

*Emboasca usata* sp. n. 1-7 1 penis, posterior view - 2 penis, side view - 3 anal tube appendage - 4: abdominal apodemes - 5: proportions of pygophore side and anal tube appendage - 6: pygophore appendage - 7 paramere. - *E. youbocola* sp. n.: 8-14. - *E. kulta* sp. n. 15-20. 20: specimen mutilated by parasites. - *E. ngongensis* sp. n. 21-26.



Figs. 27-49.

*Empoasca mysia* sp. n. 27-31. — *E. lulupa* sp. n. 32-38. 36: pygophore side. — *E. ruan-*  
*dae* sp. n.: 39-44. — *E. imbongae* sp. n. 45-49.

The new species is the closest related to *Empoasca theroni* (GERARD, 1972) **comb. n.**, primary *Kybos theroni* GERARD.

***Empoasca kulkा* sp. n.** (Figs. 15–20)

Ground light yellowish-green. Fore wing semivitreous, light greenish. Whitish hypodermal pattern restricted to bordering of coronal suture, two oblique streaks on vertex, centre of scutum and three triangular patches in anterior part of scutellum.

Length ♂ 2.75–2.85 mm.

**Holotype** male Zaire, Lubumbashi „Elisabethville“ Nov 1949, coll. CH. SEYDEL; **paratype** ♂ Nigeria, NW State, Bida, Sep. 1, 1970, coll. J. T. MEDLER. (T, USNM)

One male being seriously damaged („Elisabethville“ Dec. 5, 1951, coll. CH. SEYDEL) is not included to the type-series. The new species is similar to *E. theroni* (GERARD) but differs by penis more swollen and pygophore appendage with serrated margins.

***Empoasca ngongensis* sp. n.** (Figs. 21–26)

Vertex slightly produced in the middle. Ground yellowish-green. Eyes brown, ocelli testaceous. Whitish-green hypodermal pattern consists of two indistinct patches at both sides of coronal suture, the other one at coronal suture, some irregularly shaped patches at anterior margin of pronotum, centre of scutum and greatest part of scutellum. Fore wing lighter than pronotum, its apical one third semivitreous.

In subgenital plate distinct gap in rows of slender setae.

Length: ♂ 3.10 mm.

**Holotype**, male Kenya, Ngong Forestry Station, pound, Jan. 12, 1968, coll. P. J. SPANGLER. (USNM)

***Empoasca mysia* sp. n.** (Figs. 27–31)

Body quite slim. Anterior margin of vertex rounded. Eyes brown-testaceous. Ground light testaceous with olivaceous tint. Passing vertex to face ochraceous. Fore wing semi-transparent with greenish tint. Whitish hypodermal pattern seen only on centre of scutum and at anterior margin of scutellum (three patches).

Length ♂ 3.60 mm.

**Holotype** male Zaire, Lubumbashi „Elisabethville“ Dec. 5, 1951, coll. CH. SEYDEL. (USNM)

This specimen probably partly lost its natural colouration.

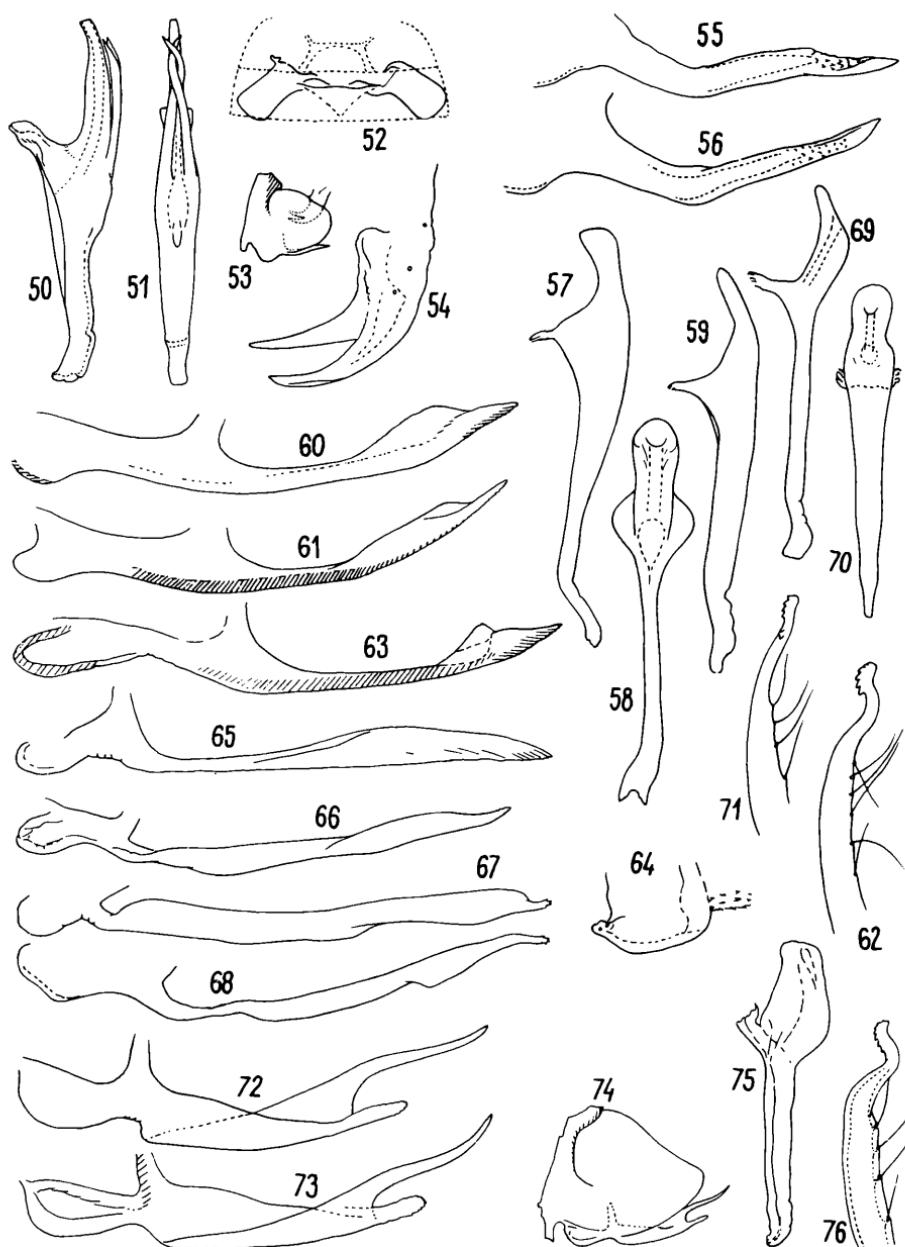
***Empoasca lulupa* sp. n.** (Figs. 32–38)

Quite slim. Vertex about half longer in the middle than at eyes. Eyes testaceous-brown. Ground light yellowish-green. Fore wing dull, hardly semivitreous in tip part, light greenish. Passing vertex to face ochraceous. Whitish hypodermal pattern complete but not very distinct. Patches at anterior margin of pronotum very numerous, fused with each other.

The most characteristical feature of this species is very rich setosity of pygophore side (Fig. 36).

Length: ♂ 2.50–2.75 mm.

**Holotype**, male, and **paratypes** 3 ♂♂ Liberia, Suakoko, March 21, 1952, coll. C. C. BLICKENSTAFF; **paratypes**, 2 ♂♂ Sudan, Equatoria, Yubo, May 12, 1948, NMSG. (USNM, ISEZ, MM)



Figs. 50-76.

*Empoasca ratka* sp. n. 50-56. — *Jacobiasca sulcata* sp. n. 57-71. 65-71: specimens mutilated by parasites. — *J. paolii* sp. n. 72-76.

**Empoasca ruandae sp. n. (Figs. 39–44)**

The specimen has lost its natural colouration. Vertex slightly longer in the middle than at eyes, light testaceous. Eyes dark brown. Remaining parts of body dark testaceous. Fore wing slightly semitransparent.

There are short sclerotized processes on sides at base of penis stem. In the only known specimen there are three pairs of processes but this feature probably vary

Length: ♂ 3.15 mm.

**H o l o t y p e**, male: Ruanda contref. „Est Muhavura“ 2100 m., Jan. 28, 1953, coll. P. BA-SILEVSKY (T)

**Empoasca imbongae sp. n. (Figs 45–49)**

The specimen lost its natural colouration. Vertex slightly produced in the middle. Ground grey. Face dark grey, its sides brownish. Upper side of thorax brownish-grey. Fore wing darkened (broken at about middle of their length).

*E. imbongae* sp. n. differs from all known species of the group by presence of appendages at base of the penis stem.

Not measureable.

**H o l o t y p e**, male Zaire, Tshuapa, Imbonga, Dec., 1952, coll. R. P. LOOTENS. (T)

Group of *Empoasca monticola* HELLER et LNV**Empoasca ratka sp. n. (Figs. 50–56)**

Vertex rounded at anterior margin. Ground testaceous-yellow. Eyes blackish. Ocelli orange. No whitish markings. Fore wing light, semitransparent. Probably the specimen has lost its natural colouration.

The new species is the closest related to *E. pretoriana* DWOR. but differs from it by penis appendages twice crossed with each other (Fig. 51) and by pygophore appendage ornamented with small teeth (Figs. 55, 56).

Length: ♂ 2.75 mm.

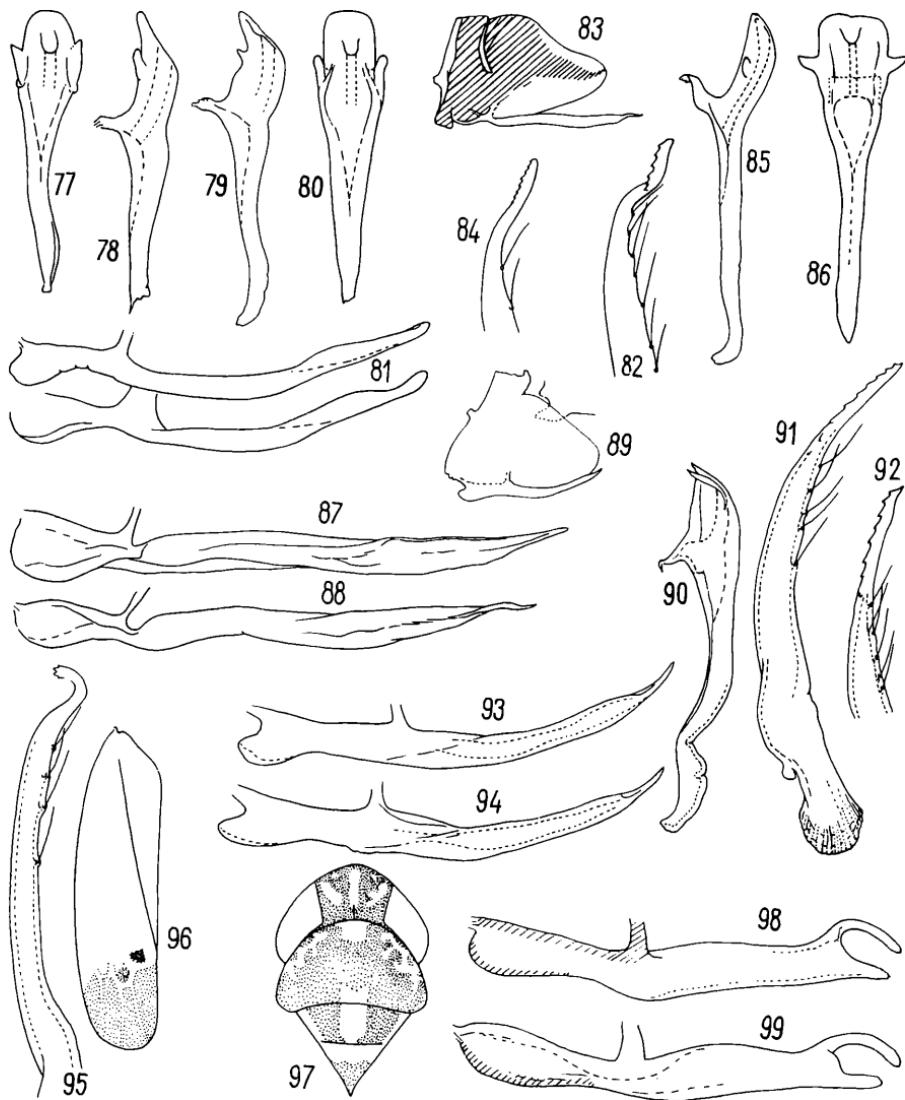
**H o l o t y p e**, male Upper Volta, Ouagadougou, Nov 3–5, 1973, coll. R. LINNAVUORI. (RL)

**Jacobiasca sulcata sp. n. (Figs. 57–71)**

Body slim. Anterior margin of vertex of normal specimens almost rounded, that in parasitized ones produced in the midline. Ground yellowish-testaceous with transition vertex to face more yellow or even orange. Whitish hypodermal pattern indistinct on head. It consists of three patches at anterior margin of pronotum, centre of scutum and three triangular patches at anterior margin of scutellum. Eyes brownish, ocelli light grey. Fore wing light testaceous or golden-yellow, apical part more transparent. In some specimens there is indistinct smoked patch at the end of longitudinal cu cell.

Length: ♂ 2.70–3.35 mm. Specimens from arid zone are smaller.

**H o l o t y p e**, male, and paratypes 2 ♂♂, Zaire, Lubumbashi „Elisabethville“ Dec. 5, 1951, coll. CH. SEYDEL; 1 ♂, Kivu, Kavimvira (Uvira), Sep.–Oct., 1954, coll. G. MARLIER; 1 ♂, Sudan, Equatoria, Yambio, Apr. 17–25; 1 ♂, Equatoria, Lotti forest, March 14–17; 1 ♂, Ethiopia, Gembu nr. Agaro, June 15, coll. R. LINNAVUORI in 1963. The paratypes being specimens mutilated by parasites, 1 ♂, Zaire, Rutshuru, Apr. 7, 1937, coll. Mission Prophylactique; 1 ♂, Nigeria, W State, Ile-Ife, Jan. 1973; 1 ♂, Ile-Ife, Jan. 9,



Figs. 77-99.

*Jacobiasca rogata* sp. n. 77-88. 83-88: specimen mutilated by parasites (in Fig. 83 the area stainable with crystal violet is stripped). — *J. atypica* sp. n. 89-94. — *J. puncta* sp. n.: 95-99. 96: fore wing — 97 head and thorax from above.

1973; 1 ♂, Ile-Ife, March 21, 1971; 2 ♂♂, Ile-Ife, Jan. 22, 1970; 1 ♂, Ile-Ife, Feb. 10, 1970; 1 ♂, Ile-Ife, March 25, 1969; 1 ♂, Erin-Odo, Nov 16, 1970; 1 ♂, SE State, Obudu, March 26, 1971, coll. J. T MEDLER; 1 ♂, Nigeria, SE State, nr. Opobo, July 3, 1973; 1 ♂, Sudan, Equatoria, Lotti forest, March 14-17 1963; 3 ♂♂, Equatoria, Yambio, Apr. 17-25, 1963.

coll. R. LINNAVUORI; 1 ♂, Guinea, Guékedou, 1962–1964, coll. I. KORECKÁ. (USNM, ISEZ, RL, BM, T, MM)

**Jacobiasca paolii sp. n. (Figs. 72–76)**

Externally resembles *J. lybica* (BERG et ZAN.) but paler. White hypodermal pattern well developed. Smoked patches on fore wing hardly visible.

Length: ♂ 2.75–3.00 mm, ♀ 3.50 mm.

**Holotype** male: Nigeria, NW State, Badeggi, Sep. 9, 1970. **Paratypes** 1 ♂, Nigeria, K State, New Bussa, Jan. 12, 1970, coll. J. T. MEDLER; 1 ♂, 2 ♀♀, Kenya, Kericho, 6000' July 20–25, 1973, coll. L. TROLLE. (RL, ISEZ)

**Jacobiasca rogata sp. n. (Figs. 77–88)**

Externally very similar to *J. sulcata* sp. n. but vertex in normal specimens slightly produced in the midline and ground rather yellow-testaceous. Whitish hypodermal pattern visible on scutum is a continuation of longitudinal central stripe and there is a transverse fascia at anterior margin of scutellum.

Length: ♂ 2.70–2.95 mm.

**Holotype** male: Liberia, Suakoko, Dec. 2, 1951. **Paratypes** ♂, same locality, Jan. 28, 1952, light trap, coll. C. C. BLICKENSTAFF 1 ♂, Nigeria, W State, Owena, Feb. 15, 1970, coll. J. T. MEDLER; 1 ♂, Zaire, Terr. Rutshuru, Aug. 13, 1937, coll. Mission Prophylactique. (USNM, RL, T)

**Jacobiasca atypica sp. n. (Figs. 89–94)**

Body gracile. Ground light yellowish-green. Head broader than pronotum. Whitish pattern consists of central stripe at coronal suture passing on frons, oblique patches at lateral frontal sutures, marks at anterior margin of pronotum, centre of scutum and broad transverse fascia in anterior half of scutellum. Fore wing of ground colour, apical cells semitransparent. Eyes testaceous-grey

Length: ♂ 2.80 mm.

**Holotype** male Nigeria, E State, Umuahia, Apr., 1973, coll. J. T. MEDLER (RL)

**Jacobiasca puncta sp. n. (Figs. 95–99)**

Ground yellowish-testaceous. Coronal suture bordered with ivory streak passing on the frontoclypeus and terminating much below level of antennae. Short ivory streaks at eyes below antennae. Whitish hypodermal pattern on upper side of body as in Fig. 97. Eyes brown. Fore wing semitransparent, dirty yellowish, darker at hind margin of clavus. Apical cells slightly smoked. Veins at apex of fore wing narrowly bordered with light yellowish. There are two brownish patches (Fig. 96).

Male genital apparatus resembles *J. boninensis* (MATS.) very much but the lower branch of pygophore appendage of the new species is thin (Figs. 98, 99) and the upper one long and arcuated. The colouring pattern allow to distinguish both species at the first sight.

Length: ♂ 3.30 mm.

**Holotype**, male Cameroon, Abong, MBang-Ayos, June 13, 1973, coll. R. LINNAVUORI. (RL)

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Zeitschrift/Journal: [Reichenbachia](#)

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