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REVIEW OF SUBTRIBE APODACRINA (DIPTERA, SARCOPHAGIDAE) OF MIDDLE EAST WITH DESCRIPTIONS OF TEN NEW SPECIES

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Review of Subtribe Apodacrina (Diptera, Sarcophagidae) of Middle East, with Descriptions of Ten New Species. Verves, Yu. G. & Khrokalo, L. A. — New distributional data and an updated and annotated checklist are provided for 27 species of Middle East Sarcophagidae of subtribe Apodacrina Rohdendorf. Of these, 17 species are recorded for Israel, 10 for Egypt, 4 for Turkey, 3 for Iran, 2 for each of Cyprus, Jordan, Saudi Arabia and United Arab Emirates, and 1 for Oman. No data are available for Bahrain, Iraq, Kuwait, Lebanon, Qatar, Syria and Yemen. Ten new species are described, including 5 from Israel (*Apodacra idiopatica* sp. n., *A. melanura* sp. n., *Xeromyia moderabilis* sp. n., *X. nahalica* sp. n., *Xerophilomyia nigritarsus* sp. n.), 2 from Saudi Arabia (*Xeromyia jeddaense* sp. n., *X. ponti* sp. n.), 1 from Cyprus (*Xerophilomyia famagustica* sp. n.), 1 from Egypt (*Apodacra firanensis* sp. n.), and 1 from Oman (*Xeromyia omanica* sp. n.). Comprehensive regional keys for the identification of genera and regional species are presented.
Key words: Apodacrina; Middle East; distribution; new species; keys; fauna.

Introduction

The subtribe Apodacrina Rohdendorf, 1967 has been reviewed in detail recently (Verves et al., 2015). It includes 3 genera and 54 species distributed in arid zones of the Palaearctic (southern part), Oriental and Afrotropical regions. Of these, 27 species are reported from the Middle East (table 1). We provide here an annotated checklist of Apodacrina for all countries of the Middle East. The ecological features of most species have yet to be investigated, but adults are often seen visiting flowers, and larvae are kleptoparasites in nests of solitary wasps and bees (Gorobchishin, 2006; Pape & Blasco-Zumeta, 1997; Verves et al., 2015).

Material and methods

This review is based on the study of specimens in the Natural History Museum, London, United Kingdom, Tel Aviv University, Israel, and the private collection of both authors. Taxonomic concepts follow our previous works (Verves, 1986; Verves & Khrokalo, 2006; Verves et al., 2015). All photos have been prepared by Prof. K. Szpila. Terminology of morphological features follows Merz & Haenni (2000). The specimens examined in this study are deposited in the following collections: NHMUK — Natural History Museum, London, United Kingdom; PCV — private collection of Yu. Verves and L. Khrokalo, Kyiv, Ukraine; TAU — The Steinhardt Museum of Natural History, Tel Aviv University, Israel.

The abbreviations used in the text are: *a* — anterior setae; *acr* — acrostichal setae; *ad* — anterodorsal setae; *ap* — apical setae; *d* — dorsal setae; *dc* — dorsocentral setae; *dm* — discal medial cell; *dm-cu* — discal medial-cubital crossvein; *ds* — discal setae; f_1 — fore femur; f_2 — mid femur; f_3 — hind femur; *fr* — frontal setae; *ia* — intra-alar setae; *kepst* — katepisternal setae; *marg* — marginal setae; M — medial vein; *npl* — notopleural setae; *oc* — ocellar setae; *orb* — orbital setae; *porb* — postorbital setae; *pprn* — postpronotal setae; r_1 — marginal cell; r_{2+3} — first submarginal cell; r_{4+5} — second submarginal cell; R_{4+5} — third longitudinal vein; *r-m* — radial-medial crossvein, t_1 — fore tibia; t_2 — mid tibia; t_3 — hind tibia; *vi* — vibrissal seta; *vte* — outer vertical seta; *vti* — inner vertical seta. The name of the country for which a particular species is reported for the first time is provided with an asterix (*).

Key to genera of the subtribe Apodacrina

1. *orb* seta-like, numerous (10–40), arranded as a tuft in posterior part of parafrontalia (figs 20, b–d). Vibrissal angle placed above oral margin, lunula in lower part strongly narrowed (fig. 21, d). ♂: t_2 and often f_2 with a ctenidium consisting of strong thick spine-like setae (figs 20, e; 22, e) ..... *Xerophilomyia* Rohdendorf, 1925
— Proclinate *orb* absent or arranged as a row with 1–6 setae. Vibrissal angle placed at oral margin, lunula in lower part not narrowed. ♂: legs without ctenidium. 2
2. Proclinate *orb* absent or present as 1–2 fine setae (figs 13, b–d). Postpedicel 4–10× as long as pedicel..... *Xeromyia* Rohdendorf, 1925
— Proclinate *orb* present as 3–6 pairs of strong setae (figs 1, c; 2, c). Postpedicel 3–5× as long as pedicel (figs 1 d; 2 d). ..... *Apodacra* Macquart, 1854

Genus *Apodacra* Macquart, 1854

Apodacra Macquart, 1854: 425. Type species: *Apodacra seriemaculata* Macquart, 1854, by monotypy.
Apodacra: Nandi, 2002: 77 (review of Hindustan species); Povolný & Verves, 1997: 80 (review); Rohdendorf, 1925: 63 (review); 1930: 12, 18 (revision); 1970: 627 (in key), 629 (key to species); Rohdendorf & Verves, 1980: 462 (in key); Séguy, 1941: 251 (review of West Palaearctic species); Townsend, 1938: 99 (diagnose); Venturi, 1960: 34 (review of European species); Verves, 1986: 68 (catalog); 1990: 538 (key to East Palaearctic species); Verves et al., 2015: 265 (review); Zerova et al., 2006: 88 (in key), 95 (key to Ukrainian species).
Parapodacra Rohdendorf, 1925: 68 (as subgenus of *Apodacra* Macquart, 1854). Type species: *Apodacra chrysocephala* Rohdendorf, 1925, by designation of Townsend, 1935: 203.

Diagnosis. Small, rarely medium-sized (3.0–6.5 mm) bright colored flies. Frons and face broad, vibrissal angle placed at oral margin, head in profile angular; posterior border of head distinctly shortened; *orb* 1–2+2–6, strong; postpedicel 3–5× as long as pedicel.

Distribution and diversity. 16 species distributed in Palaearctic, Oriental and Afrotropical Regions.

Key to species

1. All abdominal tergites shining black, with narrow stripe of light dusting near fore margin (fig. 7, f). Oral setae black, anterior part of gena with black setulae (figs 7, b–c). 4.5 mm..... *A. melanura* sp. n.
— Abdominal tergites not entirely black, with shining black spots in posterior half (figs 1, b; 3, g; 4, b; 5, f; 6, f; 8, g; 9, b; 10, f; 11, b). 2
2. Apart from a*vi*, other oral setae absent (figs 1, c–d; 2, c–d; 5, b–c; 10, b–c; 11, c–d). Gena with yellow setae. 3
— Apart from *vi*, at least one black oral seta present (figs 3, b–c; 4, c–d; 6, b–c; 8, b–c; 9, c–d). 5
3. Arista widened in basal 0.4–0.5 (figs 1, c; 2, c). Facials strongly narrower than frons (figs 1, d; 2, d–e). ♂: wing with cell r_{2+3} entirely, cells r_1, r_{4+5} and *dm* partly fumose (fig. 1, f), fore 5th tarsomere with long d (fig. 1, e). 4.5–6.5 mm. ..... *A. chrysocephala* Rohdendorf, 1925

— Arista widened in basal 0.6–0.8 (figs 5, b; 11, b–c). Facials almost as wide as frons (figs 5, c; 10, c; 11, d). ♂: wing hyaline, without darkened areas (figs 5, a; 10, f; 11, e). 4

4. The distance between median spot of 4th abdominal tergite and each lateral stripe more than diameter of median spot; median spot of 5th tegite much shorter than its lateral spots (fig. 5, f). ♂: hind 1st tarsomere widened, with ventral ctenidium formed by short spine-like setae (fig. 5, e). 5.0 mm. .... *A. firanensis* sp. n.

— The distance between median spot of 4th abdominal tergite and each lateral stripes much less than diameter of median spot; all spots of 5th tergite equal in size (fig. 10, f). ♂: Hind 1st tarsomere without ctenidium (fig. 10, a). 4.0–6.5 mm. .....*A. seriemaculata* Macquart, 1854

5. Some black setae present above *vi* (figs 8, b–c; 9, c–d). ♂: Fore 1st–4th tarsomeres with numerous elongate, erect d (fig. 8, e). 4.5–6.5 mm. .....*A. pulchra* Egger, 1861

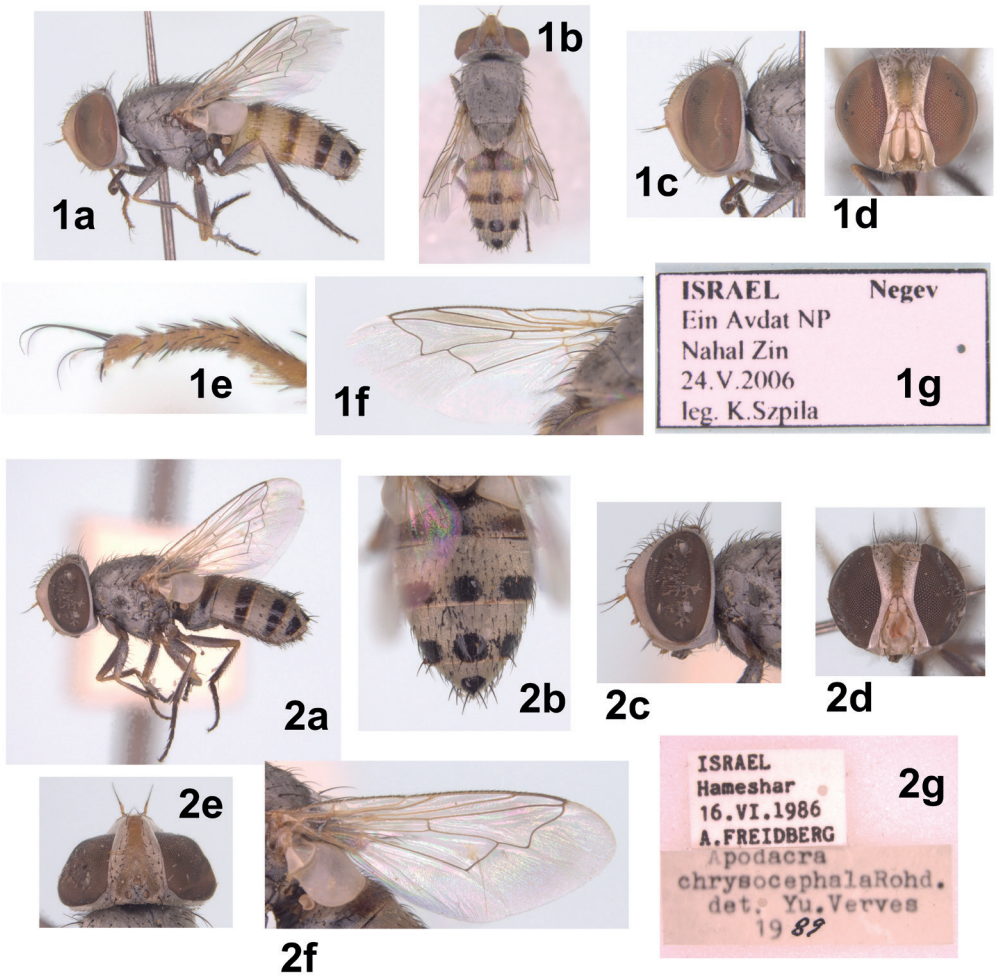
— No black setae above *vi* (figs 3, b–c; 4,c–d). ♂: Fore tarsus without long erect setae, normal setae only (figs 3, a; 6, a).....6

6. Gena with black setae (figs 6, b–c). ♂: Hind 1st tarsomere not widened, without ventral ctenidium (fig. 6 a). 4.5 mm.....*A. idiopatica* sp. n.

— Gena with yellow setae (figs 3, b; 4, c). ♂: Hind 1st tarsomere widened, with ventral ctenidium (fig. 3, e). 7

7. Ground color of abdomen silver-white (figs 3, g; 4, b). 4.5–6.5 mm. ..... *A. dispar* Villeneuve, 1916

— Ground color of abdomen orange-yellow. 5.0 mm. .....*A. radchenkoi* Verves et Khrokalo, 2015



Figs 1–2. *Apodacra chrysocephala* Rohd.: 1 (male): a — habitus in lateral view; b — habitus in dorsal view; c — head in profile; d — head in frontal view; e — fore leg in anterior view; f — wing; g — label. 2(female): a — habitus in lateral view; b — abdomen in dorsal view; c — head in profile; d — head in frontal view; e — head in dorsal view; f — wing; g — label.

Apodacra chrysocephala Rohdendorf, 1925 (figs 1–2)

Apodacra chrysocephala Rohdendorf, 1925: 69; 1930: 19 (redescription, faunistics); Rohdendorf & Verves, 1980: 497 (faunistics); Verves, 1984: 538 (faunistics); 1986: 68 (catalog); 1990: 539 (in key); Verves & Khrokalo, 2018 (Supplementary Material): 20 (faunistics); Verves et al. 2015: 267 (review).
Apodacra poeciloptera Rohdendorf, 1927: 167.
Apodacra seriemaculata: Szpila, 2010: 25 (morphology of 1st instar larva).

Material. **Israel**: 3 ♀, Hameshar, 16.06.1986, leg. A. Freidberg (TAU). 2 ♀, Be`er Meshash, 21. 06. 1986, leg. A. Freidberg (TAU). 1 ♀, S. Palestine, Dunes Ein Rhadian, 1.05.1954, leg. O. Theodor (TAU). 1 ♂, Shefech Zohar, 6.04.1988, leg. F. Kaplan (TAU). 1 ♂, Makhtech Ramon NR, Nahal Ramon, 19–20.05.2004, leg. K. Szpila (PCV). 1 ♀, Nahal Secher, 19.07.1984, leg. M. Kaplan (TAU). 1 ♂, Negev, dunes along Nahal Sekher, n. Ramat Khovav, 13.05.2006 leg., K. Szpila (PCV). 1 ♂, Zin Wilderness, Nahal Zin at En Akrabim, cane-covered sandy wadi el, –61 m, (30°53′38″ N, 35°09′39″ E), 10. o4.1995, leg. M. E. Irwin (TAU). 1 ♀, Arava Valley, Iddan, wadi running east of date palm orchard, –110 m (30°48′93″ N, 35°16′79″ E), 24.03.1995, leg. M. Irwin (NHMUK). 2 ♂, Arava Valley, Shizaf Nature Reserve, Hazeva, north of water treatment plant low sandy hummocks in small wadi el, -80 m (30°46′01″ N, 35°15′37″ E), 24.03.1995, leg. Irwin. 1 ♀, Negev, Ein Avdat, NP Nahal Zin, 17.05.2006, leg. K. Szpila (PCV). 1 ♀, Ezuz, 15.08.1984, leg. I. Nussbaum (TAU). 1 ♂, Yeruham, 26.04.1973, leg. M. Kaplan (TAU). 1 ♀, Dead Sea, Wadi Deyal, 10.05.1958, leg. O. Theodor (TAU). 1 ♀, Elifaz, sewage, 5.04.1997, leg. A. Freidberg (TAU). **Egypt**: 1 ♀, Sinai: Firan, 9.04.1973, leg. A. Freidberg (TAU). 1 ♀, St. Katharina, 18.07.1974, leg. F. Kaplan (TAU).

Distribution: Palaearctic: Asia: Egypt (Sinai), Israel, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Mongolia, China (Gansu, Neimenggu).

Habits: Adult flies prefer sandy areas.

Apodacra dispar Villeneuve, 1916 (figs 3–4)

Apodacra dispar Villeneuve, 1916: 507; Holstein & Rudzinsky, 1994: 114 (habits, faunistics); Pape, 1988: 8 (revision of type); Piwczyński et al., 2017: 53, 57 (in dendrograms); Szpila, 2010: 23 (morphology of 1st instar larva); Verves et al., 2015: 267; 2017: 133 (faunistics); Verves & Khrokalo, 2014: 12 (habits, faunistics); 2018 (Supplementary Material): 20 (faunistics); Zerova et al., 2006: 96 (in key); Zumpt, 1961: 117 (revision of type and faunistics).
Apodacra rondaniella Venturi, 1957: 157; 1960: 35 (in key); Pape, 1988: 8 (type revised); 38 (taxonomy, faunistics); Verves, 1986: 68 (catalog).
Apodacra cyprica: Séguy, 1941: 251 (redescription and faunistics); misidentification, not *cyprica* Rondani, 1859.

Material. **Israel**: 1 ♀, Akko, 4.10.1970, leg. A. Freidberg (TAU). 1 ♀, Herzliyya Beach, 12.10.1986, on dead fish, leg. A. Freidberg (TAU). 1 ♀, W. Faria, 1.06.1971, leg. J. Kugler (TAU). 1 ♂, Dunes Ashqelon, Coakepst Plain, 25.04.1954, leg. O. Theodor (TAU). 1 ♂, Mizpe Shalem Palms, South 9.04.1986, leg. A. Shlagman (TAU). 1 ♀, Nahal Bsor, 19.07.1984, leg. F. Kaplan. 1 ♂, Sede Boqer, 2.06.1953, leg. O. Theodor (TAU). 1 ♀, Ein Aqev, 8.08.1977, leg. A. Freidberg (TAU). 1 ♀, Farael, 28.04.1976, leg. M. Kaplan (TAU). 1 ♀, Ramon, 4.08.1970, leg. J. Kugler (TAU). 1 ♂, Rt. 171, 3 km W of Bor Loz, 8.05.2003, leg. A. Freidberg (TAU).

Distribution: Palaearctic: Europe: Spain, France, Italy, Greece, Czech Republic (Moravia), Ukraine; Asia: Israel*, Turkey, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan. Afrotropical: Angola, South Africa, Tanzania, Zimbabwe.

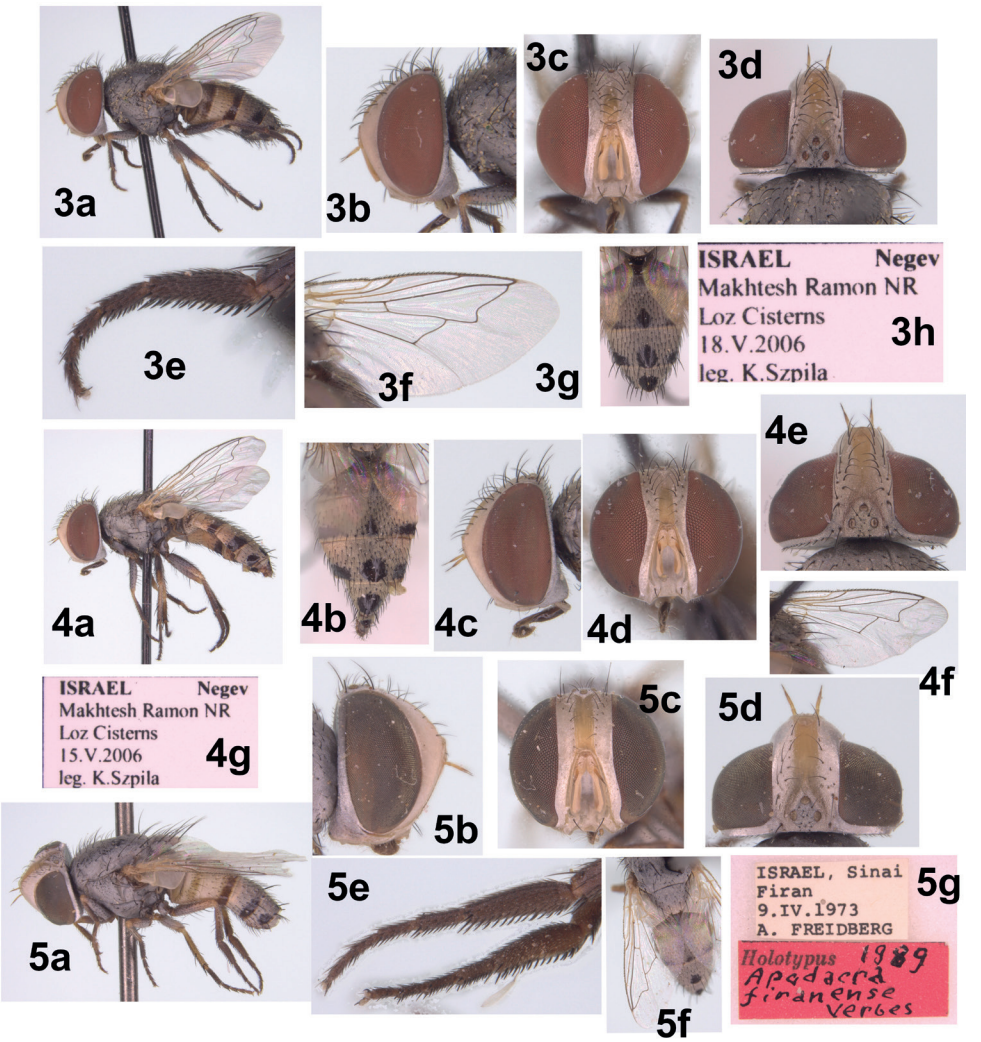
Habits: Adult flies prefer sandy areas. Larvae were found in a dead specimen of the grasshopper *Eyprepocnemis plorans* (Charpentier) (Holstein & Rudzinski, 1994).

Apodacra firanensis Verves et Khrokalo, **sp. n.** (fig. 5)

Material. Type. Holotype: ♂ : Egypt: Sinai, Firan, 9.04.1973, leg. A. Freidberg. Deposited in TAU.

Differential diagnosis: Similar to *A. dispar* Villeneuve, 1916 by the structure of hind tarsi and head proportions, differing by the absence of *vte*, undeveloped oral setae, elongate postpedicel, yellow fore tarsi and partial reduction of abdominal pattern.

Male. Body length 5.0 mm. — *Head* (figs 5, b–d). Head densely silvery white pollinose, frontal vitta light yellow, almost without dusting, occiput and gena light grey pollinose, antenna and palp yellow, apex of arista fuscous. Frons at vertex 0.36×, at level of antennal base 0.35× head-width. Frontal vitta 1.5× widened backwards, at level of fore *orb* equal in length to parafrontalia. Postpedicel 3,7× as long as pedicel, arista widened in basal 2/3.



Figs 3–4. *Apodacra dispar* Vill.: 3 (male): a — habitus in lateral view; b — head in profile; c — head in frontal view; d — head in dorsal view; e — hind leg in anterior view; f — wing; g — abdomen in dorsal view; h — label. 4 (female): a — habitus in lateral view; b — abdomen in dorsal view; c— head in profile; d — head in frontal view; e — head in dorsal view; f — wing; g — label.
Fig. 5. *Apodacra firanense* sp. n. (male): a — habitus in lateral view; b — head in profile; c — head in frontal view; d — head in dorsal view; e — hind legs in anterior view; f — wing & abdomen in dorsal view; g — label.

Parafacialia at level of antennal base 0.22×, gena 0.11× eye-height. Palp at apex widened. *oc* fine, seta-like; *vte* absent; *orb* 1+2–3, medium long; *fr* 7–8, long and fine; parafrontalia and parafacialia with microscopic light setae; gena with erect yellow setae; only one pair of *vi* present; oral setae absent. — *Thorax* (fig. 5, a) covered with long black setae, light grey pollinose, longitudinal stripes of mesonotum poorly developed; tip of scutellum yellowish; *acr* 0+1; *dc* 0+1; *ia* 1+1; *pprn* 2; *npl* 2 (with several setulae); *kepst* 1+1. Scutellum with 3 pairs of long and strong *marg*; *ds* seta-like. — *Wing* (figs 5 a, f) hyaline. Petiolus of vein R_{4+5} 0.5× as long as *r-m*, vein R_{4+5} with one basal seta, vein *M* right-angled, *dm-cu s*-like curved. — *Legs* (figs 5, a, e). All femora grey pollinose, in distal parts yellow, tibia yellow, t_1 and t_3 exteriorly grey pollinose, fore tarsi yellow, other tarsi entirely dark brown. First tarsomere of hind tarsus widened, with ctenidium of short and thick ventral spine-like setae. t_2 with one *ad*. — *Abdomen* (fig. 5, f) densely light yellowish grey pollinose, pattern partly reduced; 1+2nd tergite anteriorly fuscous; 3rd tergite with a mark of dark median spot in hind 0.4 and

paired shining yellowish brown lateral stripes; 4th tergite in hind 0.3 with black median spot and paired lateral stripes, the distance between spot and stripes more than diameter of spot; 5th tergite with black median spot in hind 0.5 and paired lateral stripes in hind 0.6–0.7; 6th tergite with small shining black median spot. 1+2nd and 3rd abdominal tergites without medio-marginal setae. Terminalia black, light pollinose.

Female. Unknown.

Etymology: The species epithet is formed from the name of the type locality, *Firan*.

Distribution: Palaearctic: Asia: Egypt (Sinai).

Apodacra idiopatica Verves et Khrokalo, **sp. n.** (fig. 6)

Material. Type. Holotype: ♂: Israel: Ma`agan Mikha`el, 11.06.1985, leg. J. Kugler. Deposited in TAU.

Differential diagnosis: Similar to *A. dispar* Villeneuve, 1916 in the presence of black oral setae and shortened postpedicel, differing by the black setae of gena and the absence of ctenidium on ♂ hind tarsi.

Male. *Body length* 4.5 mm. — *Head* (figs 6, b–d). Head yellowish silver pollinose, frontal vitta in fore 2/3 yellow, almost without dusting, antenna and palp yellow, apical part of arista blackish. Frons at vertex 0.43×, at level of antennal base 0.33× head-width. Frontal vitta 3.5x× widened backwards, at level of fore *orb* 0.6× as wide as parafrontalia. Postpedicel 2.2× as long as pedicel, arista widened in basal 0.6. Parafacialia at level of antennal base 0.20×, gena 0.07× eye-height. Palp medium long, at apex widened. One regular row of *porb*; *vte* fine, 0.5× as long as *vti*; *oc* seta-like; *fr* 9–10, mid-long, in fore part of frons crossed; *orb* 1+3, strong; parafrontalia and parafacialia with microscopic yellow setae; below of *vi* several fine black oral setae present; gena in fore part with several black setae; hind part of gena and lower part of occiput with yellow setae. — *Thorax* (fig. 6, a) covered with short black setae, densely light grey pollinose, longitudinal stripes of mesonotum absent, scutellum entirely yellowish; *acr* 0+1; *dc* 2–3+4, only hind pair strong; *ia* 0–1+1; *pprn* 2; *npl* 2 (without setulae); *kepst* 1+1, katepisternum setaly. Scutellum with 3 pairs of strong *marg*, *ds* badly developed. — *Wing* (fig. 6, e) hyaline, basicosta and epaulett yellow. The petiolus of vein R_{4+5} 0.3× as long as *r-m,* vein R_{4+5} bare, vein *M* right-angled, *dm-cu s*-like curved, the ratio of 3rd and 5th costal sections is 1: 2.5. — *Legs* (fig. 6, a) grey, knees yellow. 2nd–4th tarsomeres of fore tarsi shortened, with numerous short *d*; t_2 with one long and one short *ad*. Hind tarsi without ctenidium. — *Abdomen* (figs 6, a, f) densely yellowish grey pollinose. 1+2nd and 3rd tergites without medio-marginal setae. 1+2nd tergite with brownish median spot and widened brownish black lateral stripes; 3rd tergite in hind 0.3 with small black median spot and brownish black lateral stripes, the distance between elements of pattern more than diameter of median spot; 4th tergite with similar black pattern in hind 0.4, but the distance between elements equal to diameter of median spot; 5th tergite in hind 2/3 with 3 black spots. Terminalia black, densely light pollinose.

Female. Unknown.

Etymology: The species epithet is an adjective formed from the Greek words, *idios* — peculiar, and *pathos* — suffering; in the medical literature this word refers to the phenomenon of unknown origin of some feature.

Distribution: Palaearctic: Asia: Israel.

Apodacra melanura Verves et Khrokalo, **sp. n.** (fig. 7)

Material. Type. Holotype: ♀: Israel: Ein Zik, 8.08.1977, leg. A. Freidberg. Deposited in TAU.

Differential diagnosis: Similar to the Afrotropical *A. natalensis* Villeneuve, 1916 in the abdominal pattern and black tarsi, differing by the absence of reddish abdominal spots and black setae on gena.

Female. *Body length* 4.5 mm. — *Head* (figs 7, b–d). Parafrontalia, facialia and gena densely silvery light pollinose, frontal vitta yellow, almost without dusting, antenna yellow,

dark grey pollinose, apical part of arista black, palp yellow, occiput grey pollinose. Frons at vertex 0.34×, at level of antennal base 0.31× head-width. Frontal vitta 1.8× widened backwards, at level of fore *orb* 1.1–1.4× as wide as one of parafrontalia. Postpedicel 3.3× as long as pedicel, arista widened in basal 2/3, 2nd aristomere 2× as long as wide. Parafacialia at level of antennal base 0.20×, gena 0.06× eye-height. Palp long, at apex widened. One regular row

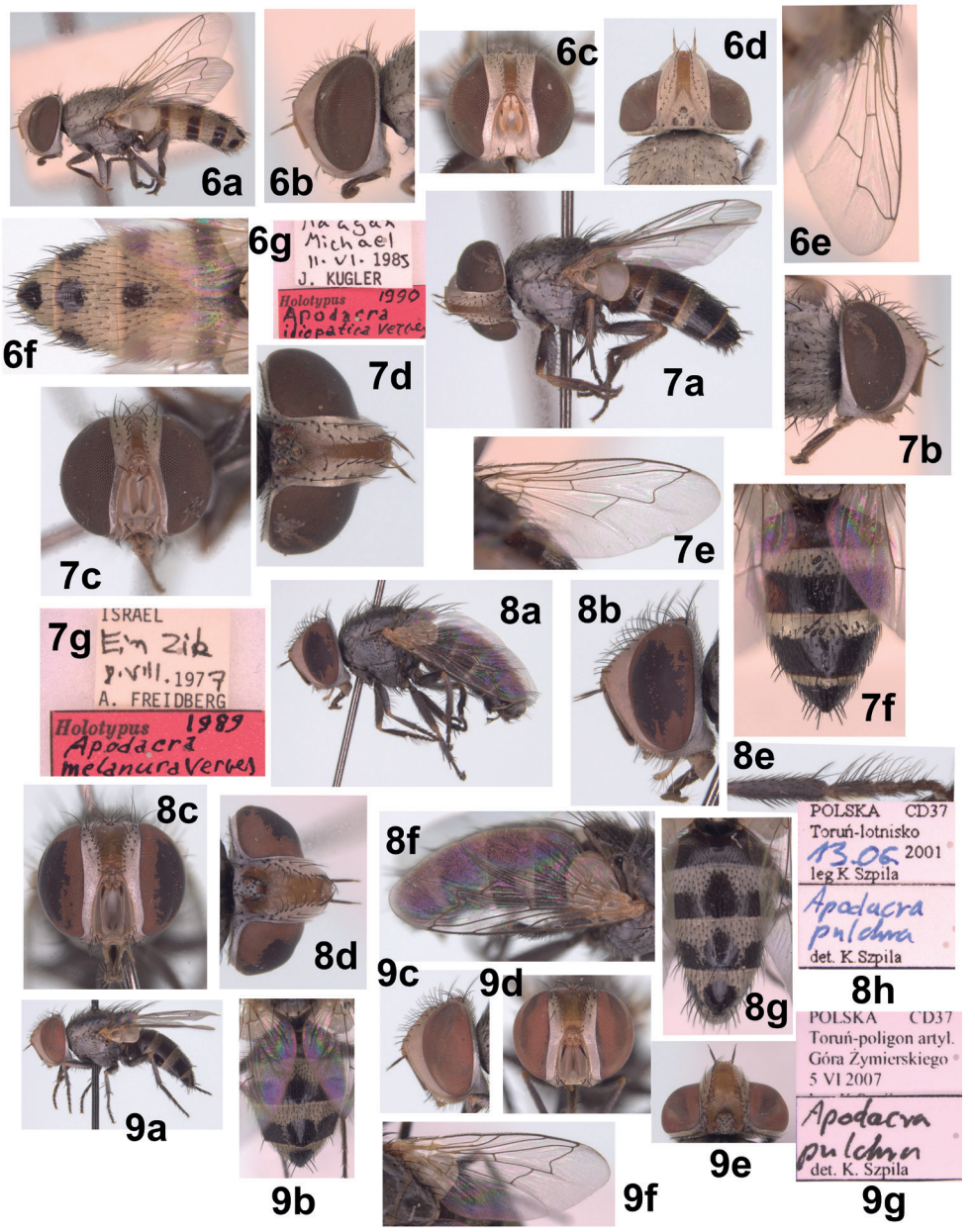


Fig. 6. *Apodacra idiopatica* sp. n. (male): a — habitus in lateral view; b — head in profile; c — head in frontal view; d — head in dorsal view; e — wing; f — abdomen in dorsal view; g — label.
Fig. 7. *Apodacra melanura* sp. n. (female): a — habitus in lateral view; b — head in profile; c — head in frontal view; d — head in dorsal view; e — wing; f — abdomen in dorsal view; g — label.
Figs 8–9. *Apodacra pulchra* Egger. 8 (male): a —habitus in lateral view; b —head in profile; c —head in frontal view; d —head in dorsal view; e — fore leg in posterior view; f — wing and abdomen in lateral view; g — abdomen in dorsal view; h — Label. 9 (female): a —habitus in lateral view; b — abdomen in dorsal view; c — head in profile; d —head in frontal view; e —head in dorsal view; f — wing; g — label.

of *porb*; *vte* strong, 0.5× as long as *vti*; *oc* strong and long; *fr* 8, strong and crossed; *orb* 1+5, long and strong; parafrontalia and parafacialia with microscopic light setae, *vi* strong and distinctly longer than 5 pairs of black oral setae; gena in fore part with black setae, in hind one with yellow setae. — *Thorax* (fig. 7 a) covered with long and strong black setae, yellowish grey pollinose, longitudinal stripes badly developed, apex of scutellum reddish. *acr* 0+1–2; *dc* 0–1+5–6, only 2 hind pairs strong; *pprn* 2; *npl* 2 (without setulae); *ia* 1+2. Scutellum with 3 pairs of long *marg*, *ds* badly developed. t_2 with one *ad*. — *Wings* (fig. 7, e) hyaline. The petiolus of vein R_{4+5} 0.5× as long as *r-m*, vein R_{4+5} with 2–3 black basal setae, vein *M* acute-angled, *dm-cu* slightly curved, almost straight. — *Legs* (fig. 7, a). All femora grey, at apex yellow, all tibia yellow, t_1 and t_2 in apical parts fuscous, all tarsi brownish black. — *Abdomen* (figs 7, a, f). 1+2nd abdominal tergite entirely blackish brown; 3rd and 4th tergites in hind 2/3 shining black, in fore 1/3 densely silvery white pollinose; 5th tergite in hind ¾ shining-black.

Male. Unknown.

Etymology: The species epithet is a noun in apposition formed from the Greek words *melanos* — black and *ura* — tail.

Distribution: Palaearctic: Asia: Israel.

Apodacra pulchra Egger, 1861 (figs 8–9)

Apodacra pulchra Egger, 1861: 216; Piwczyński et al., 2017: 53, 57 (in dendrograms); Povolný & Verves, 1997: 80 (redescription, habits, faunistics); Rohdendorf, 1930: 19 (redescription, faunistics); 1970: 639 (in key); Séguy 1941: 256 (redescription, faunistics); Szpila, 2010: 24 (morphology of 1st instar larva); Szpila & Pape, 2005: 293 (larval morphology); Venturi, 1960: 34 (in key), 36 (morphology, faunistics); Verves, 1986: 68 (catalog); Verves & Khrokalo, 2014: 12 (habits, faunistics); 2018 (Supplementary Material): 20 (faunistics); Verves et al., 2015: 268 (review); 2018: 99 (faunistics); Zerova et al. 2006: 96 (in key).

Material. **Israel**: 1 ♂, Mt. Hermon (1500 m), 8.08.1974, leg. A. Freidberg (TAU).

Distribution: Palaearctic: South and Central Europe; Asia: Israel, Turkey, Tajikistan, China (Neimenggu).

Habits: Flies prefer sandy areas.

Apodacra seriemaculata Macquart, 1854 (figs 10–11)

Apodacra seriemaculata Macquart, 1854: 426; Gorobchishin, 2006: 111 (habits); Piwczyński et al., 2017: 53, 57 (in dendrograms); Rohdendorf, 1930: 19 (redescription); 1970: 639 (in key); Séguy, 1941: 257 (redescription); Venturi, 1960: 35 (in key), 38 (review); Verves, 1986: 68 (catalog); Verves & Khrokalo, 2014: 12 (habits, faunistic); 2018 (Supplementary Material): 4 (faunistic); Verves et al., 2015: 269 (review); 2018: 99 (faunistic); Zerova et al., 2006: 95 (in key).

Material. **Israel**: 1 ♀, Palestine, Tantura, 16.08.1954, leg. O. Theodor (TAU). 1 ♀, Nahal Alexander, 6.07.1996, leg. R. Hoffman (TAU). 1 ♂, Lakhish, 9.09.1970, leg. A. Freidberg (TAU). 1 ♂, 1 ♀, Sheluhat Qadesh Barnea', 7.05.1998, leg. A. Freidberg (TAU). 3 ♂, Negev, Makhtech Ramon NR, Loz Cisterns, 18. and 23.05.2006, leg. K. Szpila (PCV). 1 ♀, Dunes Ache, 18.09.1954, leg. O. Theodor (TAU). 1 ♀, S. Palestine, Tel Faza, Wadi Shall, 21.05.1953, leg. O. Theodor (TAU). 1 ♀, Coakepst plain, Nathalia, 28.08.1953, leg. O. Theodor (TAU). 1 ♀, Tell Far`a, 21.05.1953, leg. J. Wahram (TAU). 1 ♀, Taba, 27.04.1974, leg. A. Freidberg (TAU).

Distribution: Palaearctic: South Europe; Asia: Turkey, Israel, Iran, United Arab Emirates, Turkmenistan.

Habits: Psammophilous and xerophilous species. Larvae were found in a nest of the sphecid wasp *Tachysphex panzeri* (Vander Lind.) provisioned by paralyzed acridids (Grandi, 1961).

Genus ***Xeromyia*** Rohdendorf, 1925

Xeromyia Rohdendorf, 1925: 70 (as subgenus of *Apodacra* Macquart, 1854). Type species: *Apodacra xanthopoda* Rohdendorf, 1925, by designation of Townsend, 1938: 152.
Xeromyia: Rohdendorf, 1930: 16, as a subgenus of *Apodacra* Macquart, 1854 (revision); Rohdendorf & Verves, 1980: 493 (key); Verves, 1986: 85 (catalog); 1990: 539 (key to East Palaearctic species); Verves et al., 2015: 270 (review).

Figs 10–11. *Apodacra seriemaculata Mcq.*: 10 (male): a —habitus in lateral view; b —head in profile; c —head in frontal view; d — head in dorsal view; e — wing; f — abdomen in dorsal view; g — label. 11 (female): a — habitus in lateral view; b — abdomen in dorsal view; c —head in profile; d —head in frontal view; e —head in dorsal view; f — wing; g — label.

Diagnosis. Small or medium sized (3.5–9.5 mm) bright colored flies. Frons and face of medium width, vibrissal angle placed at oral margin, head in profile angular; hind border of head slightly shortened; *orb* 1+ 0–2; Postpedicel 3–10× as long as pedicel.

18 species are distributed in southern part of Palaearctic and Afrotropical Regions. Larvae of *Xeromyia* sp. were bred from nests of sphecid wasp *Tachysphex pompiliformis* (Panz.) where feed by paralyzed locust *Dociostaurus kraussi* Ingen. (Malkovsky, 1962).

Key to species

1. ♀. 2
— ♂. 14
2. 2 pairs of *vi.* Frons as wide as eye, 0.30× head-width, frontal vitta in fore part parallel, in the middle of frons 1.5× as wide as one of parafrontalia, 1.5× widened in hind part. Abdomen reddish yellow, 3rd and 4th tergites with brown median spots, 5th tergite with 3 spots. 6.0–8.0 mm..... *X. algiralis* (Séguy, 1941)
— One pair of *vi.* 3
3. 2 pairs of proclinate *orb* (figs 15, b–c; 16, b–c). Frontal vitta in fore part strongly narrowed, narrower than one of parafrontalia. 4.5–5.0 mm. ..... *X. merei* (Séguy, 1941)
— One pair of proclinate *orb* or they absent (figs 17, b–c; 18, c–d). 4
4. 4th abdominal tergite in hind part shining black. 5.0–5.5 mm ..... *X. sulcata* (Villeneuve, 1933)
— 4th tergite with another pattern, sometimes entirely black. 5
5. Gena with yellow setae only (figs 17, b–c; 18, b–c. 6
— Fore part of gena with several black setae in addition to yellow ones. 13
6. Pleuron and legs entirely yellow. 4.5–5.5. mm..... *X. xanthopoda* (Rohdendorf, 1925)
— Pleuron grey pollinose, legs as a rule partly dark pollinose. ..... 7.
7. 3rd–5th abdominal tergites entirely black, slightly light pollinose. 4. 0 mm. .....*X. omanica* **sp. n.**
— 3rd–5th tergites with dark spots and stripes, densely light pollinose. 8
8. 3rd tergite in hind part entirely shining black. 4.0–6.5 mm..... *X. stenorhina* (Rohdendorf, 1934)
— 3r d tergite in hind part with distinctly separated median spot and lateral stripes. 9

9. Frontal vitta in fore part 0.5× as wide as one of parafrontalia. The distance between lateral stripes and median spot of 3rd abdominal tergite very narrow, almost linear. 6.5–7.0 mm. Saudi Arabia. .... *X. jeddaense* **sp. n.**
— Frontal vitta in fore part not less than 0.7× as wide as one of parafrontalia (fig. 12, d). The distance between spot and stripes of 3rd abdominal tergite broad, only slightly less than diameter of median spot. 10
10. Lateral bands of 4th and 5th abdominal tergites black (fig. 12, b). 4.5–5.5 mm. .... *X. africana* (Rohdendorf, 1930)
— Lateral bands of 4th and 5th abdominal tergites brownish yellow. 4.5–7.0 mm. .... *X. pseudoxygona* (Rohdendorf, 1925)
11. 4th abdominal tergite with dark median spot and lateral stripes. 12
— 4th tergite with median spot only, lateral stripes absent. 5.0–5.5 mm. *X. ponti* **sp. n.**
12. 4th and 5th abdominal tergites with dark brown to black median spot and brownish yellow lateral stripes. 4.0–5.5 mm. ..... *X. orthogona* (Rohdendorf, 1925)
— Pattern of 4th and 5th tergites completely black. 5.0 mm. ..... *X. moderabilis* **sp. n.**
13. 2 pairs of proclinate *orb* (figs 15, a–c; 16, b–d). 14
— One pair of proclinate *orb*. 15
14. Gena in fore part with yellow setae only. ..... *X. merei* (Séguy, 1941)
— Gena in fore part with several black setae. 4.5 mm. ..... *X. nahalica* **sp. n.**
15. Abdomen with linear longitudinal median black stripe (fig. 13, f). 16
— Abdominal tergites with broad median spots and lateral stripes in hind parts. 17
16. Abdomen densely golden grey pollinose, lateral spots of 4th tergite well developed,black. t_1 in apical 2/3 black. ..... *X. orthogona* (Rohdendorf, 1925)
— Abdomen orange yellow, with fine light dusting, lateral spots of 4th tergite almost reduced, brownish yellow. t_1 entirely yellow..... *X. ponti* **sp. n.**
17. 3rd abdominal tergite in hind part entirely shining black (fig. 17, f) .... *X. stenorhina* (Rohdendorf, 1934)
— 3rd abdominal tergite with median spot and separated with it paired lateral stripes. 18
18. In addition to usual pattern, 3rd abdominal tergite with a pair of lateral black setaed areas in hing part. 5.5–7.0 mm. ..... *X. dasystigma* (Rohdendorf, 1934)
— 3rd abdominal tergite without black setaed areas. 19
19. Pleuron and legs entirely yellow. ..... *X. xanthopoda* (Rohdendorf, 1925)
— Pleuron and legs distinctly light grey pollinose. 20
20. Lateral spots of 1+2 abdominal tergite brownish black (figs 12, a–b). .... *X. africana* (Rohdendorf, 1930)
— Lateral spots of 1+2 abdominal tergite brownish yellow. ..... *X. pseudoxygona* (Rohdendorf, 1925)

Xeromyia africana (Rohdendorf, 1930) (fig. 12)

Apodacra (*Xeromyia*) *africana* Rohdendorf, 1930: 16.
Xeromyia africana: Koçak & Kemal, 2015: 352 (faunistics); Rohdendorf & Verves, 1980: 497 (in key); Verves, 1986: 85 (catalog); Verves & Khrokalo, 2018 (Supplementary Material): 20 (faunistics); Verves et al., 2015: 270 (review).

Material**. Israel**: 1 ♀, Palestine, nr. Jerisheh, 4–7 mi NE of Jaffa, 26.04.1918, leg. E. Austen (NHMUK). (2 ♂, Berekhat Ya'ar, North, 23.05.2003, leg. A. Freidberg (TAU). 1 ♀, Bafjam, leg. A. Freidberg, 10.06.1985 (TAU). 1 ♂, Be`er Meshash, 17.07.1985, leg. J. Susman (TAU). 1 ♂, 1 ♀, Nahal Secher, 19.07.1984, leg. M. Kaplan (TAU). 1 ♀, Negev, dunes along Nahal Sekher n. Ramat Khovav, 13.05.2006, leg. K. Szpila (PCV). 1 ♀, Sede Boqer, 2.06.1953, leg. O. Theodor (TAU). 1 ♀, Hazeva Field School, 30°43′ N, 35°15′ E, 14.12.1997, leg. A. Maklakov (TAU). 1 ♂, Elifaz, sewage, 5.04.1997, leg. A. Freidberg (TAU).

Distribution: Palaearctic: North Africa: Morocco; Asia: Israel.
Habits: Psammophilous and xerophilous species.

Xeromyia algiralis (Séguy, 1941)

Apodacra algiralis Séguy, 1941: 254.
Xeromyia algiralis: Rohdendorf & Verves, 1980: 496 (in key); Verves, 1986: 86 (catalog); Verves & Khrokalo, 2018 (Supplementary Material): 21 (faunistic); Verves et al., 2015: 270 (review).

Material**. Egypt**: 1 ♀, Siwa, 31.08.1935, leg. J. Omer-Cooper (NHMUK).

Distribution: Palaearctic: North Africa: Algeria, Egypt.

Habits: Larvae live in nests of the eumenid wasp, *Eumenes dimidiatipennis* Sauss. (Séguy, 1941).

Xeromyia jeddaense Verves et Khrokalo, **sp. n.**

Material. Type. Holotype: ♀: Saudi Arabia: nr. Jedda, 21.01.1946, leg. E. S. Brown. Deposited in NHMUK. Paratype: ♀: Saudi Arabia: Buraiman nr. Jedda, 18.01.1946, leg. E. S. Brown. Deposited in NHMUK.

Differential diagnosis: Similar to *X. africana* (Rohdendorf, 1930) and *X. transoxiana* (Rohdendorf, 1925) in coloration and abdominal pattern, differing from the former species by the fine *fr* and narrower dusting areas between spots of 3rd abdominal tergite, and from the latter by the very narrow fore part of frontal vitta.

Female. Body length 6.5–7.0 mm. — *Head.* Frontal vitta brownish yellow, almost without dusting, other parts of head densely silvery white pollinose. Antenna and palp yellow, apical half of arista darkened. Frons at vertex 0.34–0.35×, at level of antennal base 0.30–0.33× head-width. Frontal vitta 3.0× widened in hind part, in fore part parallel, 0.5× as wide as one of parafrontalia. Postpedicel 3.0× as long as pedicel, arista widened in basal 0.7–0.8. Parafacialia at level of antennal base 0.17–0.19×, gena 0.04–0.06× eye-height. Palp at apex strongly widened. *oc* fine; *fr* 8–10, short and fine, not crossed; *orb* 1+1, proclinate ones short; parafrontalia and parafacialia with short light setae; gena with more dense and long yellow setae and 2–3 black setae in fore part; one pair of *vi*; oral setae absent. — *Thorax* covered with medium long black setae, densely light grey pollinose, longitudinal stripes badly developed, the apex of scutellum light yellow. *acr* 0+1; *dc* 0+2–3; *ia* 0–1+1–2; *pprn* 2; *npl* 2 (without setulae). Scutellum with 3 pairs of strong marg; *ds* not distinct. — *Wings* hyaline. Costal spine absent, petiolus of cell r_{4+5} 0.5× as long as *r-m*, R_{4+5} bare, *M*-vein right-angled, *dm-cu s*-like curved. t_2 near the middle with one elongate and one short *ad*. — *Legs* yellow; f_1 almost entirely, f_2 and f_3 in basal 2/3 grey pollinose; t_1 and t_3 fuscous in basal 2/3; base of t_3 grayish. — *Abdomen* with light yellowish grey dusting, with black pattern, slightly reddish laterally. 1+2nd tergite entirely black, 3rd tergite in hind 1/3–2/5 with rectangle transverse median spot, separated from lateral stripes by narrow areas of dusting; 4th tergite with similar pattern, but pollinose areas between spots more wide; 5th tergite in hind 0.6 with large median spot and paired rectangle lateral spots.

Male. Unknown.

Etymology: The species epithet is formed from the name of the type locality, *Jedda*.

Distribution: Palaearctic: Asia: Saudi Arabia.

Xeromyia moderabilis Verves et Khrokalo, **sp. n.**

Material. Type. Holotype: ♀: Israel: Hazeva Field School, 30°43′ N, 35°15′ E, 25.06.1997, leg. A. Maklakov. Deposited in TAU.

Differential diagnosis: Similar to *X. orthogona* (Rohdendorf, 1925) in abdominal pattern and presence of black setae on gena, differing by entirely black pattern of 4th and 5th abdominal tergites.

Female. Body length 5.0 mm. — *Head.* Frontal vitta brownish yellow, almost without dusting, parafrontalia, lunula, parafacialia and fore part of gena densely silvery white pollinose, hind part of gena and occiput light grey pollinose. Antenna and palp yellow, only apical narrowed part of arista darkened. Frons at vertex 0.38×, at level of antennal base 0.33× head-width. Frontal vitta 1,8× widened in hind part, in the middle of frontal length 1.5× as wide as one of parafrontalia. Postpedicel 4.2–4.3× as long as pedicel, arista widened in basal 0.7–0.8. Parafacialia at level of antennal base 0.17×, gena 0.09–0.10× eye-height. Palp at apex strongly widened. *porb* 1 row; oc midle long; *fr* 7–9, short and fine, not crossed; *orb* 1+1, proclinate ones medium long; parafrontalia and parafacialia with short light setae; gena with more dense and long yellow setae and 2–3 black setae in fore part; only one pair of *vi*; oral setae absent. — *Thorax* covered with with medium long black setae, densely light

grey pollinose, the apex of scutellum light yellow. *acr* 0+1; *dc* 1+2–3; *ia* 0–1+1–2; *pprn* 2; *npl* 2 (without setulae). Scutellum with 3 pairs of strong marg and one pair *ds*. — *Wings* hyaline. Costal spine absent, petiolus of cell r_{4+5} 0.5x as long as *r-m*, R_{4+5} bare, *M*-vein right-angled, *dm-cu s*-like curved. — *Legs* grey pollinose, tarsi brownish black; apical parts of *f* and basal 0.3–0.5 of *t* yellow. t_2 near the middle with one elongate and one short *ad*. — *Abdomen* with light yellowish grey dusting, with dark pattern. 1+2nd tergite entirely brownish black, 3rd tergite in hind 0.3 with brownish grey stripe, which formed middle triangle shining black area; 4th tergite in hind 04 with black pattern, consisted from median spot and lateral stripes, separated by narrow pollinose areas; 5th tergite in hind 0.6 with oval median spot and paired rectangle lateral spots in hind 0.4.

Male. Unknown.

Etymology: The species epithet is an adjective formed from the Latin word *moderabilis* — moderate.

Distribution: Palaearctic: Asia: Israel.

Xeromyia nahalica Verves et Khrokalo, **sp. n**.

Material**.** Type. Holotype: ♂, Israel: Nahal Lavan, 30.04.1996, leg. I. Yarom. Deposited in TAU.

Differential diagnosis: Similar to *X. merei* (Séguy, 1941) in the presence of 2 pairs of proclinate *orb* and frontal vitta narrower than parafrontalia, but distinctly differing by the presence of several black setae in fore part of gena.

Male. Body length 4.0 mm. — *Head* yellowish white pollinose, frontal vitta yellow, slightly pollinose, vertex fuscous, antenna and palp yellow, apex of arista blackish. Frons at vertex 0.39×, at level of antennal base 0.38× head-width. Frontal vitta 2.3× widened backwards, in the middle of frons 0.7× as wide as one of parafrontalia. Postpedicel 4.2× as long as pedicel, arista widened in basal 0.8. Parafacialia at level of antennal base 0.20×, gena 0.06× eye-height. Palp long, at apex strongly widened. *oc* medium long; *fr* 11–12, long and strong; *orb* 1+2, all pairs long and strong; parafrontalia and parafacialia with microscopic light setae; gena with more long yellowish white setae, in fore part with several black setae; *vi* one pair; oral setae absent. — *Thorax* dark, light grey pollinose, longitudinal stripes of mesonotum absent, apex of scutellum yellowish, covered with medium long black setae. *acr* 0+1; *dc* 0+1–2; *ia* 1+1–2; *pprn* 2; *npl* 2 (without setulae). Scutellum with 3 pairs of long *marg* and one pair of more short *ds*. — *Wings* hyaline. Costal spine absent, petiolus of cell r_{4+5} 0.5x as long as *r-m*, R_{4+5} bare, *M*-vein right-angled, *dm-cu* arched. t_2 with one *ad*. *Legs* black, all *f* yellow at apex, t_1 and t_3 yellow in basal 1/3–1/2, t_2 entirely yellow, all tarsi brownish black. — *Abdomen* in greater part intensively light grey pollinose; 1+2nd tergite dorsally with unclear brown middle spot and lateral spots in hind part; each of 3rd and 4th tergites in hind 0.4 with median spot and paired lateral stripes, divided by distinct pollinose areas, which only slightly narrower than median spot; 5th tergite in hind 2/3 with 3 black spots.

Female. Unknown.

Etymology: The species epithet is formed from the first word of the full name of the type locality, *Nahal*.

Distribution: Palaearctic: Asia: Israel.

Xeromyia omanica Verves et Khrokalo, **sp. n.**

Material**.** Type. Holotype: ♀; Oman: Wadi Quryat Ag. Stn. 500 m, 5.03.1976, leg. K. Guichard. Deposited in NHMUK.

Differential diagnosis: Similar to *X. africana* (Rohdendorf, 1930) in the abdominal pattern, well differing by very broad frons and more dark coloration of abdomen.

Female. Body length 4.0 mm. — *Head* yellowish white pollinose, frontal vitta yellow, slightly pollinose, vertex fuscous, antenna and palp yellow, apex of arista blackish. Frons at vertex 0.46×, at level of antennal base 0.38× head-width. Frontal vitta 2.5× widened

backwards, in the middle of frons 1.7× as wide as one of parafrontalia. Postpedicel 3.7× as long as pedicel, arista widened in basal 0.9. Parafacialia at level of antennal base 0.16×, gena 0.07× eye-height. Palp long, at apex strongly widened. *oc* medium long; *fr* 6–7, long and strong; *orb* 1+1, both pairs long and strong; parafrontalia and parafacialia with microscopic light setae; gena with more long yellowish white setae; *vi* one pair; oral setae absent. — *Thorax* covered with medium long black setae, dark grey pollinose with golden ting, longitudinal stripes of mesonotum linear, apex of scutellum brownish. *acr* 0+1; *dc* 0+1–2; *ia* 1+1–2; *pprn* 2; *npl* 2 (without setulae). Scutellum with 3 pairs of long *marg* and one pair of more short *ds*. — *Wings* hyaline. Costal spine absent, cell r_{4+5} petiolate, R_{4+5} bare, *M*-vein right-angled, *dm-cu s*-like curved. — *Legs* black, all *f* yellow at apex, t_1 and t_3 yellow in basal 1/3–1/2, t_2 entirely yellow, fore and mid tarsi yellowish brown, hind tarsi brownish black. t_2 with one *ad*. — *Abdomen* in greater part black, very fine golden pollinose, mat. 1+2nd and 3rd tergites yellow laterally; 1+2nd tergite almost entirely black dorsally; 3rd tergite in hind 0.4 with median spot and paired lateral stripes, which divided by very narrow pollinose areas; 4th tergite with similar pattern, but pollinose areas between spot and stripes somewhat broader; 5th tergite with 3 spots, median spot placed in hind 0.6, lateral spots — in hind 0.5 of this tergite.

Male. Unknown.

Etymology: The species epithet is formed from the name of the state *Oman*.

Distribution: Palaearctic: Asia: Oman.

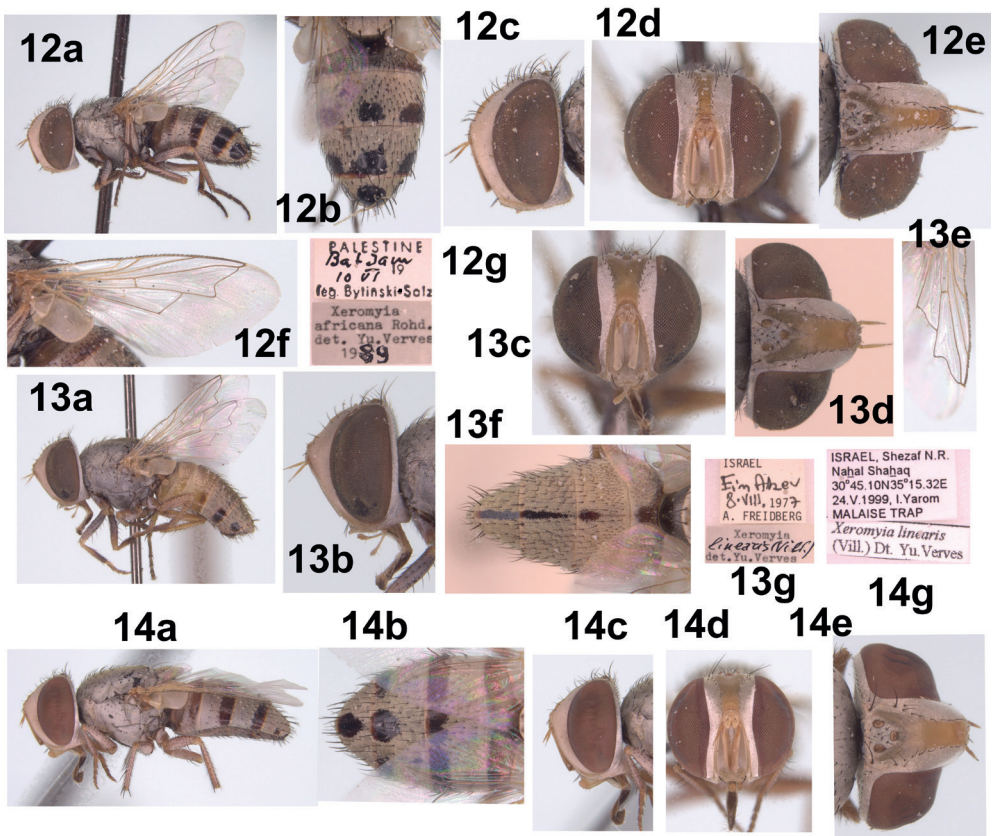


Fig. 12. *Xeromyia africana* (Rohd.) (female): a —habitus in lateral view; b — abdomen in dorsal view; c —head in profile; d —head in frontal view; e —head in dorsal view; f — wing; g — label.

Figs 13–14. *Xeromyia orthogona* (Rohd.). 13 (male): a —habitus in lateral view; b —head in profile; c —head in frontal view; d — head in dorsal view; e — wing; f — abdomen in dorsal view; g — label. 14 (female): a — habitus in lateral view; b — abdomen in dorsal view; c —head in profile; d —head in frontal view; e —head in dorsal view; g — label.

Xeromyia orthogona (Rohdendorf, 1925) (figs 13–14)

Apodacra (*Xeromyia*) *orthogona* Rohdendorf, 1925 a: 72; 1930: 17 (redesripion).
Xeromyia orthogona: Koçak & Kemal, 2015: 352 (faunistic); Rohdendorf & Verves, 1980: 495 (redescription of ♂, faunistic); Verves, 1986: 86 (catalog); Verves et al., 2015: 271 (review).
Apodacra (*Xeromyia*) *oxygona* Rohdendorf, 1925 a: 72.
Apodacra (*Xeromyia*) *oxygona*: Rohdendorf, 1930: 17 (redesription).
Apodacra oxygona: Ozerov & Krivosheina, 2016: 814 (holotype revised).
Apodacra linearis Villeneuve, 1933: 255.
Apodacra linearis: Séguy 1941: 252 (in key), 255 (redescription).
Xeromyia linearis: Rohdendorf & Verves, 1980: 496 (in key); Verves, 1986: 86 (catalog).
Apodacra (*Xeromyia*) *aegyptiaca* Rohdendorf, 1934: 9.

Material. **Israel**: 1 ♂, 1 ♀, Hameshar, 16.06.1986, leg. A. Freidberg (TAU). 1 ♀, Nahr Rubin, 1.09.1954, leg. O. Theodor (TAU). 1 ♀, Be'er Meshash, 16.06.1986, leg. A. Freidberg (TAU). 1 ♂, Ein Bogeg, 29.09.1971, leg. A. Freidberg (TAU). 1 ♀, Sedom, 13.08. 1958, leg. J. Krykepst (TAU). 1 ♀, Ein Aqev, 8.08. 1977, leg. A. Freidberg (TAU). 1 ♂, 2 ♀, Shezaf N. R., Nahal Shahaq, 24 and 31.05.1999, leg. I. Yarom (TAU). 4 ♀, Hazeva Field School, 30°43′ N, 35°16′ E, 22–23.07., 4 and 24.08.1997, leg. A. Maklakov and S. Plotkin (TAU).

Distribution: Palaearctic: North Africa: Egypt; Asia: Israel, Kazakhstan, Turkmenistan, Uzbekistan, Mongolia.

Habits: Adult flies prefer sandy and stone areas.

Xeromyia merei (Séguy, 1941) (figs 15–16)

Apodacra merei Séguy, 1941: 255.
Xeromyia merei: Rohdendorf & Verves, 1980: 496 (in key); Verves, 1986: 86 (catalog); Verves et al., 2015: 271 (review).

Material. **Israel**: 3 ♂, 2 ♀, Negev, dunes along Nahal Sekker, n. Ramat Khoval, 13.05.2006, K. Szpila (PCV).

Distribution: Palaearctic: Asia: Israel*; North Africa: Algeria, Mauritania.

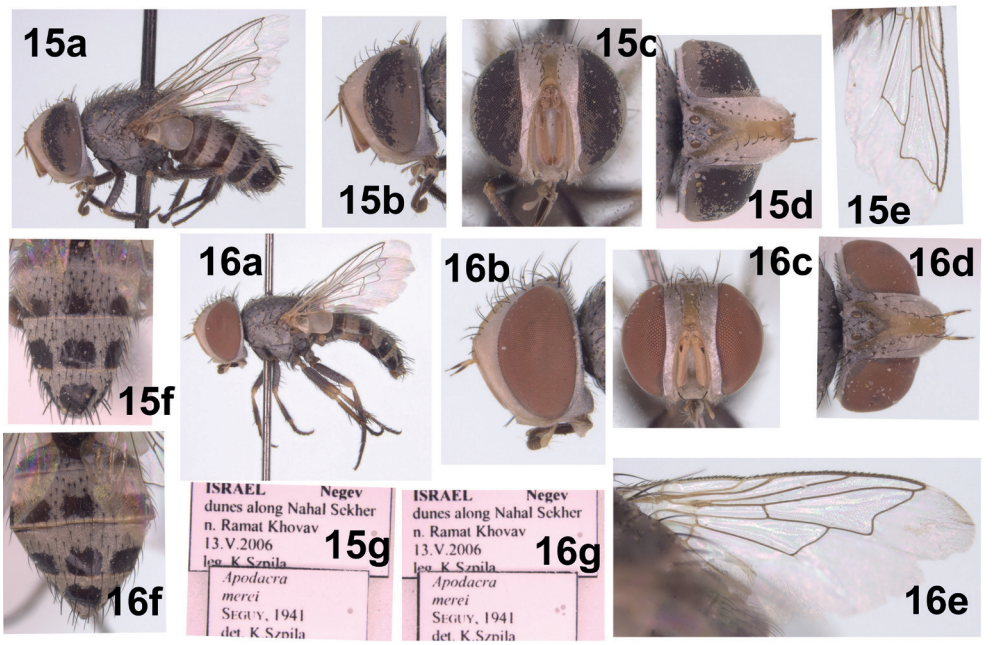
Xeromyia ponti Verves et Khrokalo, **sp. n.**

Material. Type. Holotype: ♂: Saudi Arabia: Kushm Dibl, 19.05.1978, leg. W. Buttiker. Deposited in NHMUK. Paratype: ♀: same data as holotype. Deposited in NHMUK.

Differential diagnosis: Similar to *X. orthogona* (Rohdendorf, 1925) in the abdominal pattern and presence of black setae on gena, distinctly differing by the poorly differentiated, almost lacking lateral spots of 3rd and 4th abdominal tergites.

Body length 5.0–5.5 mm. Male. — *Head* yellow pollinose, frontal vitta yellow, slightly pollinose, vertex darker, antenna and palp yellow, apex of arista blackish. Frons at vertex 0.43×, at level of antennal base 0.33× head-width. Frontal vitta 2.2× widened backwards, in the middle of frons 2.0× as wide as one of parafrontalia. Postpedicel 0.5× as long as pedicel, arista widened almost to apex. Parafacialia at level of antennal base 0.17×, gena 0.08× eye-height. Palp long, at apex strongly widened. *oc* long and strong; *fr* 9–10, medium long; *orb* 1+1, strong; parafrontalia and parafacialia with microscopic light setae; gena covered with black setae, in hind parts with mixed yellow and black setae; instead of *vi*, other oral setae absent. — *Thorax* covered with black medium long setae, densely grey pollinose, medial longitudinal stripes of tergites linear, apex of scutellum yellowish brown. *acr* 0+1, *dc* 0+1; *ia* 1+1; *pprn* 2; *npl* 2 (without setulae). Scutellum with 3 pairs of strong *marg* and one pair of crossed *ds*. — *Wings* are not preserved. — *Legs* almost entirely yellow, only middle part of fore femora grey pollinose. t_2 with one *ad*. — *Abdomen* densely light orange yellow pollinose, with very narrow black longitudinal median line on 1+2nd – 5th tergites. 5th tergite in hind 1/3 with a pair of lateral small rounded shining brownish black spots, 3rd and 4th tergites with remains of similar spots. Terminalia small, brownish yellow, light pollinose.

Female. — *Head*. Frons at vertex 0.38×, at level of antennal base 0.28× head-width; genal black setae distinctly smaller than in ♂. — *Wings* hyaline. Costal spine absent, cell r_{4+5}



Figs 15–16. *Xeromyia merei* (Séguy. 15 (male): a — habitus in lateral view; b — head in profile; c — head in frontal view; d — head in dorsal view; e — wing; f — abdomen in dorsal view; g — label. 16 (female): a — habitus in lateral view; b —head in profile; c — head in frontal view; d — head in dorsal view; e — wing; f — abdomen in dorsal view; g — label.

petiolate, *M*-vein acute-angled, R_{4+5} bare, *dm-cu s*-like curved. — *Legs* yellow, only hind tarsi and apex of hind tibia fuscous. — *Abdomen* orange yellow, slightly light pollinose. 4th tergite in hind 0.5 with rounded dark brown median spot, 5th tergite with similar spot in hind 2/3 and with the remains of yellowish lateral stripes.

Etymology: The species is named in honor of the well known British entomologist, Mr Adrian C. Pont (Oxford University Museum of Natural History).

Distribution: Palaearctic: Asia: Israel.

Xeromyia stenorhina (Rohdendorf, 1934) (figs 17–18)

Apodacra (*Xeromyia*) *stenorhina* Rohdendorf, 1934: 8.
Xeromyia stenorhina: Koçak & Kemal, 2015: 352 (faunistic); Rohdendorf & Verves, 1980: 497 (in key); Verves, 1986: 86 (catalog); Verves & Khrokalo, 2018 (Supplementary Material): 21 (faunistic); Verves et al., 2015: 272 (review).

Material**. Israel**: 1 ♀, Yeriho, 16.11.1972, leg. M. Kaplan (TAU). 1 ♀, `En Gedi, 30.03.1919, leg. Bytinski-Salz (TAU). 2 ♂, Sede Boqer, 1.05.1954 and 7.09.1972, O. Theodor and M. Kaplan (TAU). 4 ♂, Ein Aqev, 8.08.1972, leg. A. Freidberg (TAU). 1 ♂, Ein Rhadian, Dunes, Sth Palestine, without data, leg. O. Theodor. 1 ♀, Ras Fehkha, 22.11.1976, leg. M. Kaplan (TAU).

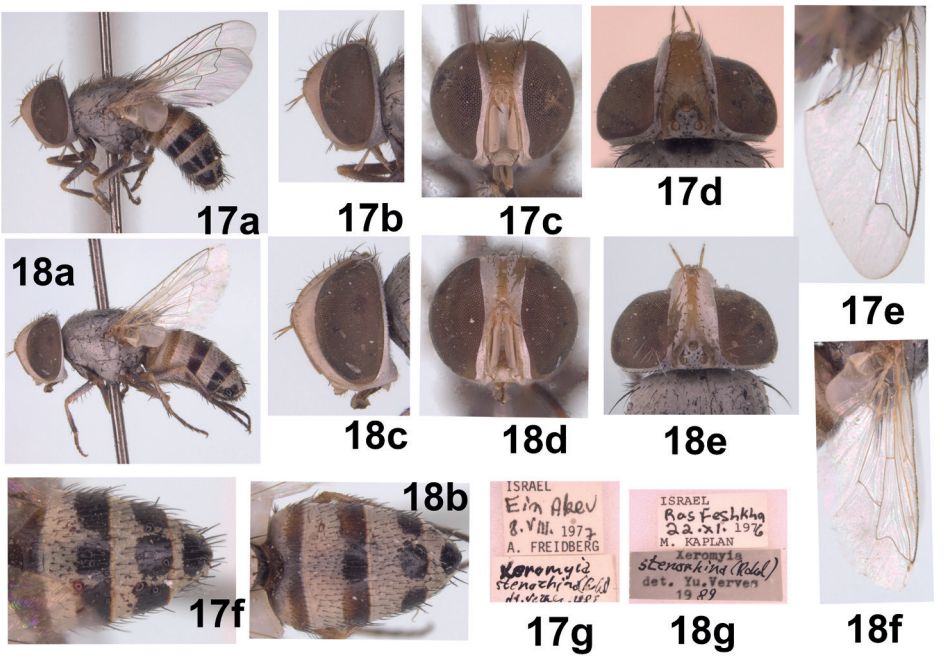
Distribution: Palaearctic: North Africa: Egypt; Asia: Israel.
Habits: Psammophilous and xerophilous species.

Xeromyia sulcata (Villeneuve, 1933)

Apodacra sulcata Villeneuve, 1933: 255.
Xeromyia sulcata: Verves, 1986: 86 (catalog); Verves & Khrokalo, 2018 (Supplementary Material): 21 (faunistic); Verves et al., 2015: 272 (review).

Material**.** 1 ♀, Ne'ot Semadar, 13.10.1996, leg. A. Freidberg (TAU).

Distribution: Palaearctic: North Africa: Egypt; Asia: Israel.
Habits: Psammophilous and xerophilous species.



Figs 17–18. *Xeromyia stenorhina* (Rohd.). 17 (male): a — habitus in lateral view; b — head in profile; c — head in frontal view; d — head in dorsal view; e — wing; f — abdomen in dorsal view; g — label. 18 (female): a — habitus in lateral view; b — abdomen in dorsal view; c — head in profile; d — head in frontal view; e — head in dorsal view; f — wing; g — label.

Genus ***Xerophilomyia*** Rohdendorf, 1925

Xerophilomyia Rohdendorf, 1925: 64 (as subgenus of *Apodacra* Macquart, 1854). Type species: *Apodacra leucocera* Rohdendorf, 1925, by designation of Townsend, 1938: 152.
Xerophilomyia: Rohdendorf, 1930: 12, as a subgenus of *Apodacra* Macquart, 1854 (revision); Rohdendorf & Verves, 1980: 491 (key to species); Verves, 1986: 86 (catalog); 1990: 540 (key to East Palaearctic species); Verves et al., 2015: 273 (review).

Diagnisis. Medium sized (5.5–10.0 mm) bright colored flies. Frons and face as wide as one eye; vibrissal angles distinctly raised over oral margin, and lunula narrowed downwards; head in profile angular; hind border of head distinctly shortened; proclinate *orb* numerous, as a group of irregular placed erect setae; Postpedicel 2.0–2.5× as long as pedicel. ♂: f_2 and t_2 with ctenidium consisting of long and flattened setae.

Twenty species occur in the south of the Palaearctic and Afrotropical Regions.

Key to species

1. ♂ 2
— ♀ 4
2. f_2 with ctenidium composed of flattened dorsal setae; dorsal and ventral ctenidiums of t_2 placed in apical 0.4–0.5; mid 1st tarsomere widened (fig. 20, e). Middle spot of 3rd abdominal tergite separated from lateral ones by broad stripes of dusting; pattern of abdomen black (fig. 20, g). Mid tarsus partly or entirely orange yellow. 4.5–8.0 mm. ..... *X. nigropicta* Rohdendorf, 1934
— f_2 without ctenidium; dorsal ctenidium of t_2 placed in apical 0.2–0.3 only; mid 1st tarsomere not widened. Middle spot of 3rd tergite more or less united with lateral stripes; lateral stripes of abdomen usually reddish (fig. 22, g). 3
3. Mid tarsus entirely orange yellow; parafrontal setose in posterior half only (fig. 22, b–d). Fore 4th tarsomere without specialised setae; t_2 with flattened setae in distal 0.3–0.5 (fig. 22, e). 6.5–9.5 mm. ..... *X. plumipes* (Villeneuve, 1933)
— Mid tarsus distinctly blackish; parafrontalia setose almost to lunula, setosity gradually fading out and ending just before reaching the level of the anteriormost frontal seta. 4th tarsomere of fore tarsus with a

long, straight, stronger *p* and an almost equally long but more curved, slender *a* (see fig. 1 in Pape, 1988); t_2 with flattened setae along most of its length. 5.0–8.0 mm..... *X. cyprica* (Rondani, 1859)

4. Mid tarsus distinctly blackish. 5
— Mid tarsus partly or entirely orange yellow. 7
5. 3rd abdominal tergite with entire black hind stripe. ..... *X. cyprica* (Rondani, 1859)
— 3rd abdominal tergite with rounded middle spot and paired lateral stripes in hind 0.4. 6
6. *orb* reach to level of fore *fr*; frontal vitta golden pollinose in hind part only (figs 19, b–d); abdomen yellowish grey pollinose, with lateral yellow areas (figs 19, a, e, f). 6.0 mm ..... *X. nigritarsus* **sp. n.**
— *orb* reach to mid length of frons; frontal vitta entirely silver pollinose; abdomen light grey pollinose, without lateral yellow areas. 5.7 mm. ..... *X. famagustica* Verves et Khrokalo, **sp. n.**
7. Middle spot of 3rd abdominal tergite separated from lateral stripes by broad pollinose areas (fig. 21, b). ..... *X. nigropicta* Rohdendorf, 1934
— 3rd abdominal tergite with entire black or laterally yellowish-red hind stripe (figs 23, a, b, f)..... ..... *X. plumipes* (Villeneuve, 1933)

Xerophilomyia cyprica (Rondani, 1859)

Apodacra cyprica Rondani, 1859: 221; Pape, 1988: 7 (type revised); Pape & Blasco-Zumeta, 1997: 93 (habits); Pape et al., 2002: 218 (faunistics); Séguy, 1941: 252 (in key), 255 (redescription); Szpila, 2010: 22 (morphology of 1st instar larva); Venturi, 1957b: 154 (redescription).
Apodacra (*Xerophilomyia*) *cyprica*: Rohdendorf, 1930: 14 (diagnose).
Xerophilomyia cyprica: Koçak & Kemal, 2012: 954, 1008, 1054, 1096, 1173, 1198, 1253; 2015: 352 (faunistics); Rohdendorf & Verves, 1980: 461 (in key); Verves, 1986: 87 (catalog); Verves & Khrokalo, 2018 (Supplementary Material): 21 (faunistics); Verves et al., 2015: 273 (review).
Apodacra bembicisequax Pandellé, 1895: 288; Pape, 2004: 18 (lectotype designated); Séguy, 1941: 253 (in key), 255 (type revised).
Apodacra (*Xerophilomyia*) *bembicisequax*: Rohdendorf, 1930: 13 (diagnose).

Material**. Israel**: 1 ♀, Lahav, 19.07.1971, leg. A. Freidberg (TAU). 4 ♂, 1 ♀, N. Zafit, pupae 23.03.1977 ex *Eumenes* nest, imagoes 15.04.1971, leg. J. Kugler (TAU). 1 ♀, Arava Walley, 2 km N of Hazeva Field School in Wadi Gidron el. — 110 m (30°46′77″ N, 35°14′58″ E), 29.03.1995, leg. M. Irwin (TAU). 4 ♂, 2 ♀, Oranim, 6.07.1960, ex nest of *Eumenes* (*Delta*) *asinus*, leg. Abalafia (NHMUK). 4 ♀, Hazeva, 27.09.1979, ex pupae *Rhynchium* sp. (TAU). 2 ♀, Hazeva Field School (30°43′ N, 35°15′ E), 5.11.1997, leg. A. Maklakov (TAU). 1 ♀, Har Horesha, 11.04.2002, leg. A. Freidberg (TAU). 5 ♂, 1 ♀, Elat, 30.06.1975, leg. A. Lapo (TAU). **Egypt**: 1 ♂, Sinai, Ein Fortaga, 12.08.1971, leg. J. Kugler (TAU). 3 ♀, Sinai, Sarabit el-Chadem, 12.09.1975, coccon of *Eumenes* sp., 17.10.1975, ex coccon, leg. D. Aizikovitch (TAU). **Jordan***: 1 ♂, Jordan Valley, Zerda R. Valley, c. 200 m, at light, 18.09.1954 (NHMUK).

Distribution: Palaearctic: Europe: Spain, France (south part and Corsica),; North Africa: Egypt (mainland); Asia: Cyprus, Egypt (Sinai), Israel, Jordan*.

Habits: Psammophilous and xerophilous species. Larvae are kleptoparasites in nests of eumenid wasps: *Delta asinus* (Sauss.), *Eumenes* sp., *Euodynerus variegatus* (F.), *Rhynchium* sp. and sphecid wasps: *Bembex* sp.

Xerophilomyia famagustica Verves et Khrokalo, **sp. n.**

Material**.** Type. Holotype: ♀, Cyprus: Famagusta, 21.05.1948. Deposited in NHMUK.

Differential diagnosis: Similar to *X. nigritarsus* sp. n. in the black mid tarsus and abdominal pattern, differing by the following characters: *orb* reach to mid length of frons; frontal vitta entirely silver pollinose; abdomen light grey pollinose, without lateral yellow areas.

Female. Body length 5.7 mm. — *Head*. Parafrontalia and parafacialia yellowish white pollinose, more dark at vertex, lunula and gena silvery white pollinose, frontal vitta yellow, entirely silver pollinose, antenna and palp yellow, apical part of arista fuscous, occiput light grey pollinose. Frons at vertex 0.36×, at level of antennal base 0.30× head-width. Frontal vitta 1.6× widened backwards, at level of middle of frons length 2.0× as wide as one of parafrontalia. Postpedicel 2.4× as long as pedicel, arista widened in basal 0.4. Parafacialia at level of antennal base 0.16×, gena 0.07× eye-height. Palp medium long, at apex widened. *oc* fine; *fr* 12–13, strong, in fore part of frons crossed; *orb* 20–25, very short,

seta-like, reach to mid length of frons; parafrontalia with microscopic light setae; gena with more long yellow setae; 2 pairs of *vi*. — *Thorax* covered with medium long black setae, densely grey pollinose, longitudinal stripes absent, scutellum yellowish brown at apex, pleurae light grey pollinose. *acr* 0+1, *dc* 3+3–4, only prescutellar one straight; *ia* 1+1; *pprn* 2; *npl* 2 (without setulae). Scutellum with 3 pairs of long *marg*; *ds* badly developed. — *Wings* hyaline. Costal spine absent, petiolus of cell r_{4+5} short, 0.3×x as long as *r-m*; R_{4+5} bare, *M*-vein acute-angled, *dm-cu* straight. — *Legs* yellow, f_1 and f_3 almost entirely, f_2 in basal part light grey pollinose; all tibia yellow, t_1 light grey pollinose, all tarsi black; t_2 with 2 *ad*. — *Abdomen* light grey pollinose, without lateral yellow areas. 3rd tergite with rounded middle spot and paired lateral stripes in hind 0.4, the distance between spot and stripes relatively equal to diameter of middle spot; 4th tergite with similar pattern, but distance between stripes and spot less than diameter of middle spot; 5th tergite in hind 2/3 with 3 distinctly spots. All spots and stripes black. 1+2nd and 3rd abdominal tergites without medio-marginals.

Male. Unknown.

Etymology: The species epithet is formed from the name of the type locality, *Famagusta*.

Distribution: Palaearctic: Europe: Cyprus.

Xerophilomyia nigritarsus Verves et Khrokalo, **sp. n.** (fig. 19)

Material. Type. Holotype: ♀, Israel: Lahave, 27.03.1972, leg. J. Kugler. Deposited in TAU.

Differential diagnosis: *Xerophilomyia nigritarsus* sp. n. is similar to *X. ctenoscelis* (Rohdendorf, 1925) from Central Asia in the abdominal pattern, differing by the black tarsi of all legs.

Female. Body length 5.5–6,0 mm. — *Head.* Parafrontalia and parafacialia yellowish grey pollinose, darker at vertex, lunula and gena silvery white pollinose, frontal vitta yellow, in fore part shine, in hind part fine golden pollinose, antenna and palp yellow, apical part of arista fuscous, occiput light grey pollinose. Frons at vertex 0.38×, at level of antennal base 0.34× head-width. Frontal vitta 1.5× widened backwards, at level of middle of frons length 1.3× as wide as one of parafrontalia. Postpedicel 2.0× as long as pedicel, arista widened in basal 0.4. Parafacialia at level of antennal base 0.16×, gena 0.07× eye-height. Palp medium long, at apex widened. Oc fine; *fr* 12–13, strong, in fore part of frons crossed; *orb* 14–18, seta-like, reach to level of fore *fr*; parafrontalia with microscopic light setae; gena with more long yellow setae; 2 pairs of *vi*. — *Thorax* covered with medium long black setae, densely grey pollinose, longitudinal stripes absent, scutellum yellowish brown at apex, pleurae light grey pollinose. *acr* 1+1–2, *dc* 2+3–4; *ia* 1+1; *pprn* 2; *npl* 2 (without setulae). Scutellum with 3 pairs of long *marg* (*ap* crossed) and one pair of shorter *ds*. t_2 with one *ad*. — *Wing* hyaline. Costal spine absent, petiolus of cell r_{4+5} short, 0.3× as long as *r-m*; R_{4+5} bare, *M*-vein acute-angled, *dm-cu* almost straight. — Legs yellow, f_1 and f_3 almost entirely, f_2 in basal part light grey pollinose; all tibia yellow, t_1 slightly fuscous, all tarsi black. — *Abdomen* yellowish grey pollinose, tergites with dorsal black spots and stripes and lateral yellow areas. 3rd tergite with rounded middle spot and paired lateral stripes in hind 0.4, the distance between spot and stripes more than diameter of middle spot; 4th tergite with similar pattern, but distance between stripes and spot less than diameter of middle spot; 5th tergite in hind 2/3 with 3 connected spots. 1+2nd and 3rd abdominal tergites without medio-marginals.

Male. Unknown.

Etymology: The species epithet is a noun in apposition formed from the Latin words *niger* — black, dark, and *tarsus*.

Distribution: Palaearctic: Asia: Israel.

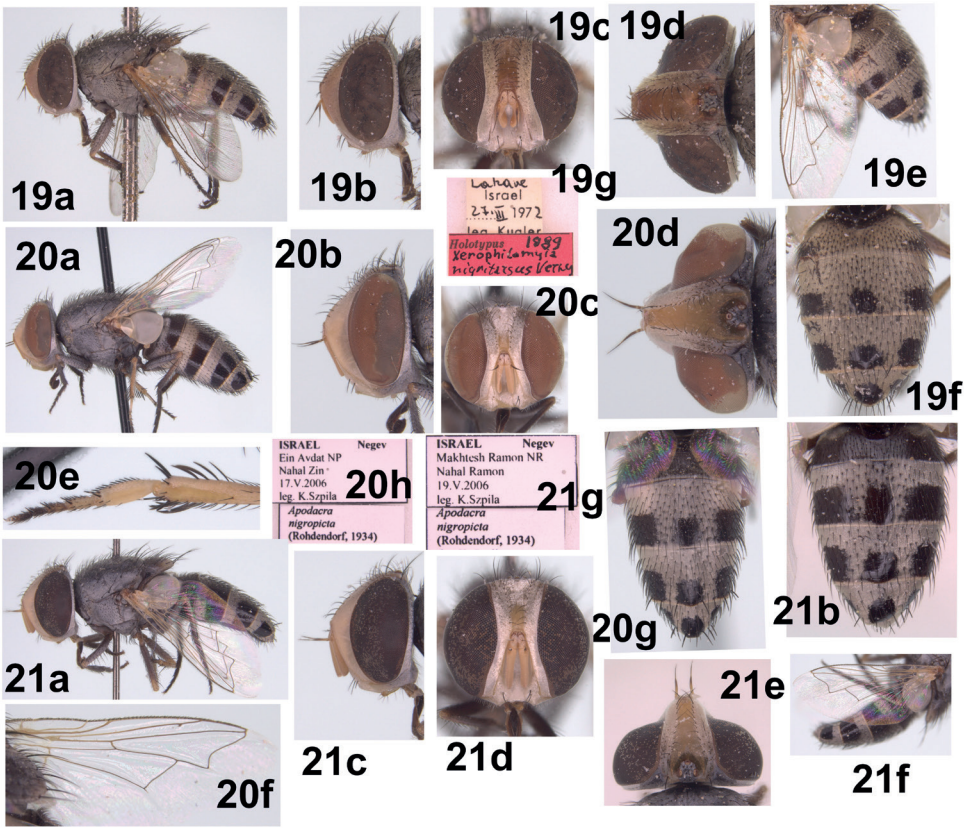


Fig. 19. *Xerophilomyia nigritarsus* sp. n.: a —habitus in lateral view; b —head in profile; c —head in frontal view; d —head in dorsal view; e — wing & abdomen in dorsolateral view; f — abdomen in dorsal view; g — label.
Figs 20–21. *Xerophilomyia nigropicta* Rohd. 20 (male): a — habitus in lateral view; b — head in profile; c — head in frontal view; d — head in dorsal view; e — widdle leg in antrerior view; f — wing; g — abdomen in dorsal view; h — label. 21 (female): a —habitus in lateral view; b — abdomen in dorsal view; c — head in profile; d — head in frontal view; e — head in dorsal view; f — wing abdomen, lateral view; g — label.

Xerophilomyia nigropicta Rohdendorf, 1934 (figs 20–21)

Xerophilomyia nigropicta Rohdendorf, 1934: 6; Koçak & Kemal, 2015: 352 (faunistic); Rohdendorf & Verves, 1980: 461 (in key); Verves, 1986: 87 (catalog); Verves & Khrokalo, 2018 (Supplementary Material): 21 (faunistic); Verves et al., 2015: 274 (review).
Apodacra nigropicta: Mazen & Aal, 2007: 11 (habits); Piwczyński et al., 2017: 53, 57 (in dendrograms); Szpila & Pape, 2016: 96 (morphology of 1st instar larva).

Material. **Israel**: 1 ♂, Yeriho, 27.04. 1973, leg. A. Freidberg (TAU). 2 ♂, 7 ♀, Be'er Meshash, 20.04. 1978, ex nest of Eumenidae in stem, leg. M. Kaplan (TAU). 1 ♂, Qumran, 24.03. 1986, leg. F. Kaplan (TAU). 1 ♂, Ein Gedi, 16.12. 1972, leg. M. Kaplan (TAU). 1 ♂, Arad, 21.04. 1981, leg. F. Kaplan (TAU). 1 ♂, Nahal Uvda, Shaharut Junc. 2.05. 1986, leg. A. Freidberg (TAU). 1 ♀, Avdat, 19.04. 1975, leg. A. Freidberg (TAU). 1 ♂, Bir Rekhme, 27. 03. 1958, ex Eumenidae, leg. L. Fishelsohn (TAU). 1 ♀, Hazeva Field School, 24. 02. 1998, leg. S. Plotkin (TAU). 1 ♂, Ein Feshkha, 26. 02. 1974, leg. M. Kaplan (TAU).

Morphological notes: ♂: 1–3 pairs of strong *vi*; f_2 with ctenidium consisted from long and widened *a*; t_2 with ctenidium at upper and lower surfaces in apical half; 1st tarsomere of fore tarsi very widened.

Distribution: Palaearctic: North Africa: Egypt (mainland); Asia: Israel.

Habits: Larvae have been recorded from nests of eumenid wasps.

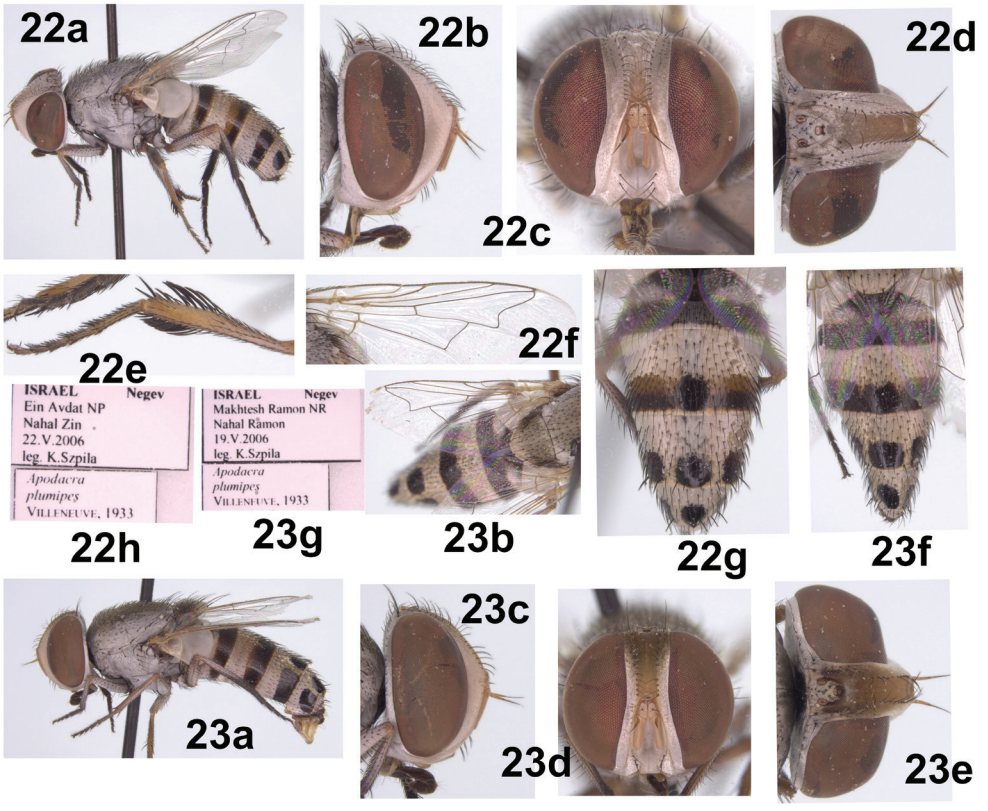
Xerophilomyia plumipes (Villeneuve, 1933) (figs 22–23)

Apodacra plumipes Villeneuve, 1933: 254; Pape, 1988: 7 (discussion); 2004: 19 (in key); Piwczyński et al., 2017: 53, 57 (in dendrograms); Séguy, 1941: 256 (redescription); Szpila, 2010: 23 (morphology of 1st instar larva); Venturi, 1960: 35 (in key), 36 (discussion).
Xerophilomyia plumipes: Koçak & Kemal, 2015: 352 (faunistic); Rohdendorf & Verves, 1980: 462 (in key); Verves, 1986: 87 (catalog); Verves & Khrokalo, 2018 (Supplementary Material): 21 (faunistic); Verves et al., 2015: 274 (review).

Material. Israel: 4 ♂, 2 ♀, Oranim (32°42′33″N, 35°06′19″E), 6.07.1960, ex nest of *Eumenes* (*Delta*) *asinus*, leg. Abalafia (NHMUK). 1 ♂, Makhtech Ramon NR, Nahal Ramon, 19.05.2004, leg. K. Szpila (PCV). 1 ♀, Lahav, 19.07.1971, leg. A. Freidberg (TAU). 4 ♂, 1 ♀, N. Zafit, 23.03.1977, ex *Eumenes* nest 15.04.1971, leg. J. Kugler (TAU). 4 ♀, Hazeva, 27.09.1979, ex pupae *Rhynchium* sp. (TAU). 1 ♂, 1 ♀, Hazeva, Field School (30°43′ N, 35°15′ E), 24.08. & 2.11.1997, S. Plotkin (TAU). 1 ♂, Zin Wilderness, Nahal Zin at An Akrabim cane-covered sandy wadi el. — 61 m (30°53′38″ N, 35°09′39″ E), 10.04.1995, leg. M. Irwin (NHMUK). 5 ♂, 1 ♀, Elat, 30.06.1975, leg. A. Lapo **Egypt**: 1 ♂, Sinai, Ein Fortaga, 12.08.1971, leg. J. Kugler (TAU). 2 ♀, Sinai, Sarabit el-Chadem, 12.04.1975, ex coccon of *Eumenes*, 17.10.1975, leg. D. Aizikovitch (TAU). **Jordan***: 1 ♂, Jordan Valley, Zerda R. Valley, c. 200 m, at light, 18.09.1954 ((NHMUK).

Distribution: Palaearctic: Europe: South France (mainland), Greece; North Africa: Morocco, Tunisia, Egypt; Asia: Egypt (Sinai), Israel, Jordan*, United Arab Emirates.

Habits: Larvae are kleptoparasites in pottery nests of eumenid wasps: *Delta asinus* (Sauss.), *Eumenes* sp., *Rhynchium* sp.



Figs 22–23. *Xerophilomyia plumipes* (Vill.). Fig. 22 (male): a — habitus in lateral view; b — head in profile; c — head in frontal view; d — head in dorsal view; e — middle leg in antrerior view; f — wing; g — abdomen in dorsal view;h — label. 23 (female): a —habitus in lateral view; b — wing & abdomen in dorsolateral view; c — head in profile; d — head in frontal view; e — head in dorsal view; f — wings & abdomen, dorsal view; g — label.

Conclusion

As the result of our studies, 27 species of Apodacrina from Middle East countries are listed. Among them ten new species are described: five from Israel (*Apodacra idiopatica*, *A. melanura, Xeromyia moderabilis*, *X. nahalica, Xerophilomyia nigritarsus*), two from Saudi Arabia (*Xeromyia jeddaensis*, *X. ponti*) and one by one from Cyprus (*Xerophilomyia famagustica*), Egypt (*Apodacra firanensis*), and Oman (*Xeromyia omanica*). Seventeen of them are recorded for Israel, ten for Egypt, four for Turkey, and three for Iran; only two species are known for each of Cyprus, Jordan, Saudi Arabia and United Arab Emirates, and one is known for Oman. No species have been recorded from Bahrain, Iraq, Kuwait, Lebanon, Qatar, Syria, and Yemen. Thus, the species composition of these insects in most of the study area is virtually unstudied. Comprehensive species lists exist only for Israel and Egypt.

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