

***Pharaonus saharicus* sp. nov. (Coleoptera: Scarabaeidae: Rutelinae)
from the Central Sahara (Algeria)**

***Pharaonus saharicus* sp. nov. (Coleoptera: Scarabaeidae: Rutelinae)
z centrální Sahary (Alžírsko)**

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**Taxonomy, new species, key, check-list, distribution, Coleoptera, Scarabaeoidea, Scarabaeidae, Rutelinae,
Pharaonus, Algeria, Sahara, Palaearctic region**

Abstract. A new ruteline scarab beetle species, *Pharaonus saharicus* sp. nov., from the Tassili n'Ajjer mountain range in the Algerian section of the Sahara desert, is described. Its relevant diagnostic characters are illustrated. The new species is classified near *P. fasciculatus* (Burmeister, 1844) from which it can be separated mainly by a different dorsal surface macrosetation and by the shape of the aedeagus. An annotated species list of the genus *Pharaonus* Blanchard, 1851 is presented, and an updated identification key to *Pharaonus* species is provided. First country records of *P. fasciculatus* from Libya and Sudan, *P. lederi lederi* (Reitter, 1888) from Afghanistan and *P. varicoloreus* (Burmeister, 1844) from Jordan are reported.

INTRODUCTION

Pharaonus Blanchard, 1851 is a small ruteline genus with six species known so far (including a new species described herein). The distribution of the genus is limited to the desert and semidesert habitats of Maghreb Africa (Algeria, Egypt, Libya, Tunisia), Sudan, the Levant countries (Israel, Jordan, Syria), southeastern Turkey, Iraq, Iran, Kuwait, Transcaucasia (Armenia), Afghanistan and Middle Asia (Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan) (Al-Houty 1989, Baraud 1985, Medvedev 1949, Machatschke 1972, Nikolajev 1987, Reitter 1903 and Zorn 2006). According to recent classifications of Rutelinae (Jameson 2002, Machatschke 1957, 1972) the genus *Pharaonus* belongs to the tribe Anomalini, subtribe Popiliina. The larval stage of *Pharaonus caucasicus* has been described by Kalashian & Soukiassian (1991). Little is so far known of the ecology and biology of *Pharaonus* species. Adults are diurnal or crepuscular and feed on various plants, larvae feed on their roots and probably have a one-year life cycle (Iablokoff-Khnzorian 1967, Medvedev 1949). The host plants of *Pharaonus caucasicus* and *P. semenowi* are considered to include *Calligonum* spp. (Begov 2007, Khanjyan 2004). *Pharaonus varicoloreus* can be an agricultural pest of cotton in southeastern Turkey (Karaat & Göven 1985).

MATERIAL AND METHODS

The following acronyms identify the collections housing the material examined:

- ABCC – Czech Republic, České Budějovice, Aleš Bezděk collection;
- DKCP – David Král collection, deposited in NMPC;
- MNCR – Czech Republic, Rožtoky u Prahy, Milan Nikodým collection;

- MNHN – France, Paris, Muséum national d’Histoire naturelle (Olivier Montreuil);
 NHMB – Switzerland, Basel, Naturhistorisches Museum, Georg Frey collection (Michel Brancucci, Isabelle Zürcher-Pfander);
 NMPC – Czech Republic, Praha, National Museum (Jiří Hájek);
 RSCV – Czech Republic, Velenice, Richard Sehnal collection;
 VMCP – Czech Republic, Praha, Vladislav Malý collection;
 ZMHB – Germany, Berlin, Museum für Naturkunde der Humboldt Universität (Manfred Uhlig, Bernd Jäger).

Altogether 189 *Pharaonus* specimens (see material below) were studied. Genitalia of at least three males of each species, if available, were dissected for examination. Specimens were examined with an Olympus SZ61 stereomicroscope, measurements were taken with an ocular grid. Specimens of the newly described species are provided with one printed red label: “*Pharaonus saharicus* sp. nov., HOLOTYPUS [or] PARATYPUS No. xy ♂, David Král det. 2012”. Exact label data are cited for the type material, individual labels are indicated by a double slash (//), individual lines of every label by a single slash (/), [p] – preceding data within quotation marks are printed, [hw] – the same but handwritten. Information in quotation marks (“”) indicates the original spelling. Author’s remarks and additional comments are found in square brackets

TAXONOMY

Pharaonus saharicus sp. nov.

(Figs 1, 4, 5)

Type locality. Central Algeria, central Sahara desert, Tassili n’Ajjer mountains, Tamrit plateau (= Edeni plateau), 1700 m, 24°37’15”N, 9°38’55”E.

Type material (4 specimens). Holotype and paratype No. 1 (♂♂), labelled: “Algeria mer. / SAHARA centr. / David Král lgt. // Tassili n’Ajjer / TAMRIT 1700m / 6.-8.5.1987 [p]”; paratypes Nos 2 and 3 (♂♂): “ALGERIA mer. / 14.-19.v.[19]72 / Tassili [n’Ajjer] / VI. MALÝ lgt. [p]”. Holotype and paratype No. 1 deposited in DKCP, paratypes Nos 2 and 3 in VMCP.

Description of holotype. Total body length 8.7 mm. Oval-shaped, relatively slender, with long legs; excepting brownish elytron whole surface black; distinctly shiny; macrosetation whitish, pale on pronotum (Fig. 1).

Head. Clypeus transverse, weakly depressed medially, margins considerably elevate; anterior margin more or less straight, anterior angles rounded, lateral margins straight and parallel; genae narrow, regularly rounded externally; fronto-clypeal suture distinct; punctation consisting of large, superficial, densely, somewhat irregularly spaced, sometimes confluent punctures especially on frons; each puncture bearing relatively long, almost erect macroseta, macrosetation of clypeus shorter than that of frons; antenna consisting of nine antennomeres, antennal club of three antennomeres, club straight and relatively long, little shorter than antennal shaft; terminal maxillar palpomere oblongly-ovate with acute-angular apex and with small, alutaceous area subbasally.

Pronotum trapezoidal, with markedly projecting acute-angular anterior angles; lateral margins distinctly divergent posteriad in about anterior third, then almost parallel toward distinctly emarginate posterior angles; basal margin bi-sinuate, margins excepting anterior angles and area near scutellar plate bordered, marginal bead narrow; punctation consisting of coarse, dense, almost regularly distributed punctures separated by approximately their diameters; surface covered with dense, long, erect macrosetae (Fig. 1).

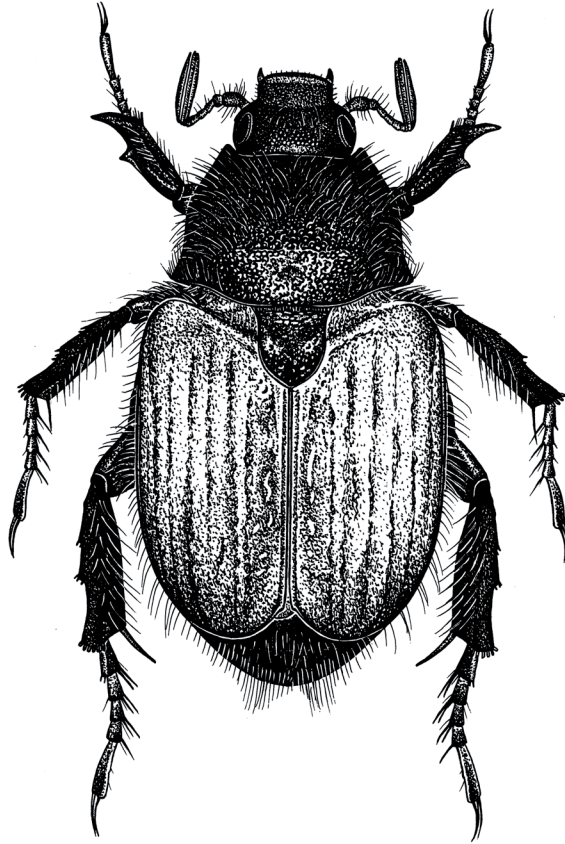


Fig. 1. *Pharaonus saharicus* sp. nov., dorsal habitus of holotype (♂).
Obr. 1. *Pharaonus saharicus* sp. nov., postava holotypu (♂) svrchu.

Scutellar plate triangulate with rounded margins, with coarse punctures bearing short, semierect, sparsely distributed macrosetae.

Elytra with distinct humerus, sides regularly rounded, widest approximately at middle; external membranous margin completely developed; striae distinctly impressed, intervals moderately convex; punctation consisting of coarse, irregularly spaced punctures, bearing very short, erect macrosetae in scutellar area.

Legs. Protibia bidentate, terminal calcar short and weak, inserted against emargination between external teeth (Fig. 1); internal protarsal claw relatively slender, cleft subapically, acute apically; external claw fine, simple; meso- and metatarsal claws simple, acute apically.

Abdominal ventrites with dense long erect macrosetae; pygidium with considerably long, sparse, erect macrosetae concentrated laterobasally (Fig. 1).

Male genitalia. Aedeagus simple, slender, relatively narrow, especially in lateral view (Fig. 5); lateral outline of parameres broadly rounded and slightly convergent apicad, apex angular (Fig. 4).

Female unknown.

Variability. Paratypes variable in body length 8.7–8.8 mm; paratype No. 4 with completely black elytra.

Differential diagnosis. Refer to the species key below.

Collecting circumstances. Holotype and paratype No. 1 were found before sunset climbing on relatively high grasses in the close vicinity of the oldest living Saharan cypress or tarout tree (*Cupressus dupreziana* A. Camus, 1926) with registration No. 1 (cf. Abdoun & Beddiaf 2002, Farjon 2005), paratypes Nos 2 and 3 were collected from herbal vegetation composed primarily of low grasses and wormwoods (*Artemisia* spp.) (Vladislav Malý, pers. comm.).

Distribution. Algeria (central Sahara desert: Tassili n'Ajjer massif).

Name derivation. Refers to the area of origin of the new species, the Sahara desert.

***Pharaonus* material examined for comparison**

***Pharaonus caucasicus* (Reitter, 1888)**

Material studied (6 specimens). **Armenia:** Vedi, peski [= sands], 18.vi.[19]57, Khnz[oriyan]. [lgt.], 2 ♂♂ in DKCP; Vedi, 19.vi.1983, M. Danilevski [lgt.], 2 ♂♂ in MNCR; Vedi, Gorovan, 24.vi.1993, M. Kalashian lgt., 2 ♂♂ in MNCR.

***Pharaonus fasciculatus* (Burmeister, 1844) (Figs 2, 3)**

Material studied (22 specimens). **Egypt:** Pyramiden [= probably pyramids near Giza], 1913, Masarey coll. [probably lgt.], 2 ♂♂ in NHMB; Amrieh, 17.vi.[19]18, Alfieri coll. [probably lgt.], 1 ♂, 1 ♀ in NHMB; Giza – Nazisaman, 28.–30.v.1969, Vlad. Zouhar lgt., 1 ♂ in DKCP; Al Hammam [near Giza], 29.iv.2002, Richard Sehnal lgt., 2 ♂♂ in DKCP, 2 ♂♂ in MNCR, 6 ♂♂ in RSCV; Ismailia, 1 ♂ in NMPC; Amrieh, vi.[no year specified], Alfieri coll. [probably lgt.], 1 ♂ in NHMB; “Aegypten” [= Egypt, no additional data], 1 ♂ in NHMB; “Egypte” [= Egypt, no additional data], 1828, Bosc coll. [probably lgt.], 1 ♂ in MNHN. **Libya:** Surmán, 29.iii.1981, Rud[olf]. Veselý lgt., 1 ♂ in DKCP; Sabratha, 10.v.1985, 1 ♂ in MNCR; **Sudan:** “Sudan” [no additional data], 1 ♂ in ZMHB.

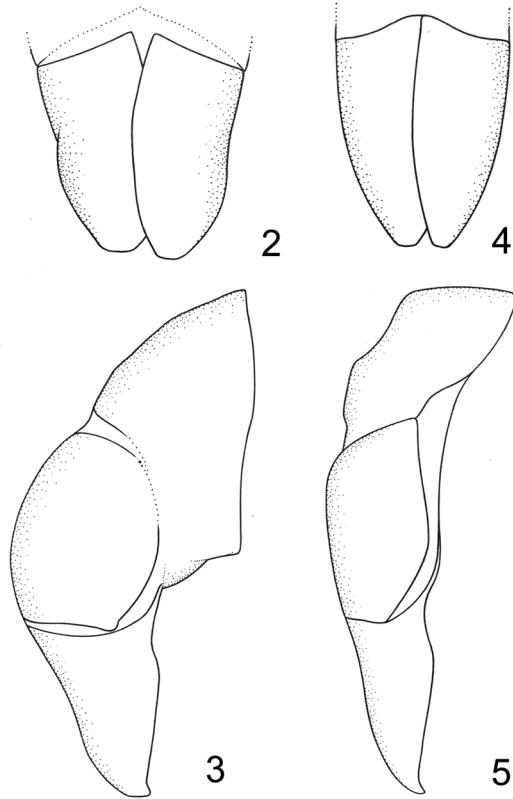
Note. First country records from Libya and Sudan.

***Pharaonus lederi lederi* (Reitter, 1888)**

Type material studied (1 specimen). **Turkmenistan:** Syntype (♂), labelled: “Turcmenia / Leder [p] // Para [hw, red ink] – typus 1888 [p, red] / Phyllopertha / lederi Reitter [label with red margin, hw, not Reitter’s hand] // PARATYPUS / Pharaonus / lederi Rtr. [red label, hw, Tesar’s hand]”, in NMPC (cf. also Bezděk & Hájek 2010).

Additional material studied (35 specimens). **Afghanistan:** Kuschke, 1896, Hauser coll. [probably lgt.], 1 ♂ in MNCR. **Tajikistan:** Shaartuz district, Dzharkurgan, 300 m, 1.v.2006, O. Pak lgt., 1 ♂ in RSCV. **Turkmenistan:** Gr[oss]. Balchan, Dschebell, 1898, F. Hauser [probably lgt.], 3 ♂♂, 2 ♂♂ in NHMB; Kisil-Arwat, 1898, F. Hauser [probably lgt.], 1 ♂ in NHMB; Merw, iv.1900, Hauser coll. [probably lgt.], 2 ♂♂, 2 ♂♂ in NHMB; Repetek, iv.1900, coll. Hauser, 10 ♂♂, 5 ♂♂ in NHMB; Gr[oss]. Balchan, 1 ♂ in NHMB; Immam Baba, 2 ♂♂ in NHMB; Ljuftabad, 1 ♂ in NHMB; **Repetek**, 28.vi.1952, 3 ♂♂, 1 ♂ in MNCR.

Note. First country record from Afghanistan.



Figs 2–5. *Pharaonus fasciculatus* (Burmeister), Egypt: Giza – Nazisaman (DKCP) (2, 3); *P. saharicus* sp. nov., holotype (4, 5). Parameres in dorsal view (2, 4), aedeagus in lateral view (3, 5).

Obr. 2–5. *Pharaonus fasciculatus* (Burmeister), Egypt: Giza – Nazisaman (DKCP) (2, 3); *P. saharicus* sp. nov., holotypus (4, 5). Paramery svrchu (2, 4); aedeagus bočně (3, 5).

***Pharaonus semenowi* (Reitter, 1887)**

Material studied (71 specimens). **Kazakhstan:** Turgai [region], Tschelkar, 13.vi.[19]07, Glasun[nov]. [probably lgt.], 1 ♂, 1 ♂ in NHMB; Syrdarja Gbt[Gebiet]. [region], Baigakum, b[bei]. [near] Dshulek, 4 ♂♂, 2 ♂♂ in NHMB; Turg[ayskayia]. obl[ast]. [region], Step [steppe] M[alyie]. Barsuki, bl[iz]. [near] Kara-Chakata, N. V. Ardosov [probably lgt.], 1 ♂, 1 ♂ in NHMB; Kl[ein]. Barsuk b[ei]. [near] Tschokat, 2 ♂♂ in NHMB. **Turkmenistan:** Repetek, iv.1900, Hauser coll. [probably lgt.], 7 ♂♂, 4 ♂♂ in NHMB. **Uzbekistan:** Kyzyl Kyr [near] Buchara, 5.v.1977, Sv. Bílý lgt., 3 ♂♂, 4 ♂♂ in DKCP, 2 ♂♂, 2 ♂♂ in VMCP; Chiva, 23.v.1986, R. Nерger lgt., 1 ♂ in DKCP; Termez env., Katta-Kum desert, Turkmenkuduk village, 5.–8.v.1988, D. Král lgt. [from *Calligonum* sp.], 16 ♂♂, 10 ♂♂ in DKCP, 4 ♂♂, 4 ♂♂ in MNCR. **Not located:** Transcasp[ia]., Mengli Ada, Warentzow [probably lgt.], 1 ♂, 1 ♂ in NHMB; Tr. Casp. [Transcaspia], Penschdeh., 1 ♂ in NMPC.

Pharaonus varicolorous (Burmeister, 1844)

Material studied (50 specimens). **Iran:** Gotvend, iv.–v.1899, Escalera [probably lgt.], 3 ♂♂, 4 ♂♂ in MNHN; Kermanschah province, Djegiran, 7.vi.1957, R. Pasquier [probably lgt.], 4 ♂♂ in MNHN; S Iran, 20 km NW Borazjan, 18.iv.1977, Loc. no. [locality number] 297, Exped. Nat. Mus. [Expedition of the National Museum] Praha, 1 ♂ in NMPC; W Iran, Fars province, 40 km NW of Shiraz, Sangar vill., vi.2011, J. Simandl lgt., 2 ♂♂ in ABCC; Bushire, Breit [probably collection of], 1 ♂ in NHMB. **Iraq:** Assur, [19]10, Pietschmann [probably lgt.], 5 ♂♂, 2 ♂♂ in NHMB; Kanakin, 9.iv.[19]36, Frey [probably coll. of], 1 ♂ in NHMB; Euphrat, Helfer [probably coll. of], 2 ♂♂ in NMPC; Euphrat, 1 ♂ in NMPC. **Jordan:** ca 40 km S of Amman by road, vi.2001, M. Kaftan lgt., 1 ♂ in DKCP. **Syria:** N Syria, Mishirfeh-Ath-Thavra, 35°48'52"N, 38°28'20", 323 m, 15.–16.vi.1998, P. Kabátek lgt., 2 ♂♂ in DKCP; Palmyra, 25.–26.v.2009, F. Houška lgt., 2 ♂♂ in ABCC. **Turkey:** Silirt province, bank of Kahveci [river], 31.v.1989, A. et I. Rozner lgt., 2 ♂♂ in VMCP; Kurdistan, Genc, 17.vi.1990, S. Prepsl lgt., 2 ♂♂ in MNCR; SE Turkey, Nemrut-Dagi, Karadut, 1.–2.vii.1993, V. Malý lgt., 4 ♂♂, 1 ♂ in VMCP; Turkey, Silirt province, 40 km SE of Silirt, Özümlük, 10.vi.1993, V. Bıza & Z. Košťál lgt., 1 ♂, 2 ♂♂ in DKCP; Nemrut Dağı, 27.vi.1993, R. Nerger lgt., 1 ♂ in DKCP; S Turkey, Nemrut Dagi, 2.vi.1995, M. Rejzek lgt., 3 ♂♂ in MNCR; S Turkey, Karadut, Narince env., 2.–8.vi.1995, 1 ♂ in DKCP; S Turkey, Birecik, Halfeti, 30.v.1998, M. Snížek lgt., 3 ♂♂ in ABCC; Turkey, 8.vii.1998, Damlacik, 1 ♂ in VMCP.

Note. First country record from Jordan.

Identification key to the *Pharaonus* species

Note. *Pharaonus lederi turcmenius* is not included in the key below because the only known specimen has not been studied by the author.

- 1 (2) Pronotum and elytron bare, without macrosetae; protibia tridentate externally; body length: 10.4–11.2 mm; Levant, SE Turkey, Iran, Iraq, Kuwait. *P. varicolorous* (Burmeister)
- 2 (1) Pronotum and elytron (at least around scutellar plate) bearing macrosetae; protibia bidentate (Fig. 1).
- 3 (4) Dorsal surface of head, pronotum and scutellar plate with considerably dense, whitish, recumbent macrosetation; body length: 8.0–9.5 mm; deserts of Middle Asia. *P. semenowi* (Reitter)
- 4 (3) Dorsal surface of head, pronotum and scutellar plate with more sparse, whitish or pale, erect or semierect macrosetation.
- 5 (6) Clypeus flat, margins not elevate; body length: 9.0–10.0 mm; Afghanistan, deserts of Middle Asia. *P. lederi lederi* (Reitter)
- 6 (5) Clypeus weakly depressed medially, margins considerably elevate.
- 7 (8) Pronotal punctation fine, sparse, somewhat irregularly distributed, punctures separated by 2–3 their diameters; body length: 8.8–8.9 mm; Armenia, NE Turkey. *P. caucasicus* (Reitter)
- 8 (7) Pronotal punctation coarse, dense, almost regularly distributed, punctures separated approximately by their diameter.
- 9 (10) Dorsal surface of head, pronotum and lateral parts of abdominal ventrites with more dense, considerably long erect or semierect, almost whitish macrosetae; pygidium covered with long and dense almost recumbent macrosetae forming two whitish spots near basis; aedeagus stout, broader, especially in lateral view (Fig. 3); lateral outline of parameres shallowly sinuate (Fig. 3); body length: 8.7–10.2 mm; Egypt, Libya, Sudan, Tunisia *P. fasciculatus* (Burmeister)
- 10 (9) Dorsal surface of head, pronotum and lateral parts of abdominal ventrites with less dense, not considerably long erect pale macrosetae; pygidium covered with considerably long, sparse, erect macrosetae concentrated laterobasally (not forming whitish spots) (Fig. 1); aedeagus slender, relatively narrow, especially in lateral view (Fig. 5); lateral outline of parameres broadly rounded (Fig. 4); female unknown; body length: 8.7 mm; Algeria (central Sahara). *P. saharicus* sp. nov.

Annotated check-list of the *Pharaonus* species with known distribution

Genus *Pharaonus* Blanchard, 1851: 201; type species *Popillia fasciculata* Burmeister, 1844.

<i>Pharaonus caucasicus</i> Reitter, 1888: 294 (<i>Phyllopertha</i>), type locality: "Caucasus, Aralych" [= nowadays Aralik in Turkey: Iğdır vilayet prov.].	Armenia (4, 12, 13, 15, 20, 30, 31), Turkey (19, 17, 25, 26, 31), "Caucasus" (16, 29).
<i>Pharaonus fasciculatus</i> Burmeister, 1844: 307 (<i>Popillia</i>), type locality: "In Aegypten". [<i>Pharaonus f.</i> "var. <i>niger</i> Blanchard, 1851: 201" was considered an available species name by several authors (e. g., Machatschke 1972, Baraud 1985), but not by Zorn (2006). The original description in Blanchard (1851) refers to "var. <i>totus niger</i> " and therefore it could be not considered a species group name in the sense of the Code (ICZN 1999) but only a description of colour variability (C. Zorn, pers. comm. 2012)].	Egypt (1, 3, 6, 7, 16, 17, 18, 19, 20, 26, 29, 30, 31), Libya (31), Sudan (31), Tunisia (3, 30, 31).
<i>Pharaonus lederi lederi</i> Reitter, 1888: 293 (<i>Phyllopertha</i>), type locality: "Turkmenien"; = <i>Phyllopertha ammodendri</i> Semenov, 1889: 201, type locality: "Turkmenia, Repetek", syn. by Reitter (1903).	Afghanistan (31), Kazakhstan (20, 21, 30, 31), Tajikistan (20, 21, 30, 31), Turkmenistan (17, 19, 20, 21, 25, 26, 30, 31), Uzbekistan (20, 21, 30, 31), "Buchara" (17, 19), "Transcaspian" (19, 26, 29).
<i>Pharaonus lederi turkmenius</i> Ohaus, 1941: 114, type locality: "Turkmenien, Merw" [= also Merv, Mary].	Turkmenistan (17, 19, 30, 31).
<i>Pharaonus saharicus</i> sp. nov.	Algeria (31).
<i>Pharaonus semenowi</i> Reitter, 1887: 510 (<i>Phyllopertha</i>), type locality: "Turkmenien".	Kazakhstan (20, 21, 30, 31), Turkmenistan (5, 17, 19, 21, 22, 24, 30, 31), Uzbekistan (20, 21, 30, 31), "Transcaspian" (26, 29).
<i>Pharaonus varicolorus</i> Burmeister, 1844: 308 (<i>Popillia</i>), type locality: "In Mesopotamien"; = <i>Phyllopertha mesopotamica</i> Blanchard, 1851: 178, type locality: "Mésopotamie", syn. by Fairmaire (1881).	Iraq (7, 10, 16, 17, 19, 20, 26, 29, 30, 31), Iran (20, 23, 30, 31), Israel (9, 11, 30, 31), Jordan (31), Kuwait (2), Syria (20, 26, 29, 30, 31), Turkey (8, 14, 27, 30, 31).

Geographic distribution compiled from the following sources:

1 – Alfieri (1976), 2 – Al-Houty (1989), 3 – Baraud (1985), 4 – Baraud (1992), 5 – Begov (2007), 6 – Blanchard (1851), 7 – Burmeister (1844), 8 – Carpaneto et al. (2000), 9 – Chikatinov & Pavliček (1997), 10 – Derwesh (1965), 11 – Fairmaire (1881), 12 – Iablokoff-Khznorian (1967), 13 – Kalashian & Soukiassian (1991), 14 – Karaat & Göven (1985), 15 – Khanjyan (2004), 16 – Kraatz (1892), 17 – Krajcik (2007), 18 – Machatschke (1957), 19 – Machatschke (1972), 20 – Medvedev (1949), 21 – Nikolajev (1987), 22 – Ohaus (1941), 23 – Petrovitz (1980), 24 – Reitter (1887), 25 – Reitter (1888), 26 – Reitter (1903), 27 – Rozner & Rozner (2009), 28 – Semenov (1889), 29 – Winkler (1929), 30 – Zorn (2006), 31 – this paper.

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SOUHRN

V práci popisují nový druh listokaze *Pharaonus saharicus* sp. nov. z pohoří Tassili n'Ajjer, které leží v alžírské části centrální Sahary. Diferenciální diagnózu nového druhu koncipují ve formě určovacího klíče všech dosud známých druhů rodu. Nový druh lze odlišit od ostatních druhů rodu v následujícím komplexu morfologických znaků: přední holeně se dvěma vnějšími zuby; klypeus uprostřed slabě vyhloubený, jeho okraje zřetelně zdvižené; tečkování štítu silné, husté, téměř rovnoměrně rozprostřené; hlava svrchu, štít a ventrity zadečku po stranách s neustálymi, dlouhým, vztyčeným ochlupením; pygidium pokryto nápadně dlouhými, řídkými, vztyčenými makrosetami, nahloučenými bazálně po stranách; paramery delší než phallobase, kupředu postupně se zužující, konce zaokrouhlené.

V článku uvádím také faunistické nálezy dalších druhů včetně prvních nálezů *Pharaonus fasciculatus* (Burmeister, 1844) z Libye a Súdánu, *Ph. lederi lederi* (Reitter, 1888) z Afghánistánu a *Ph. varicoloreus* (Burmeister, 1844) z Jordánska a dále anotovaný přehled druhů rodu *Pharaonus* Blanchard, 1851.

Typová série nového druhu pochází z těsného okolí nejstaršího dosud žijícího cypřiše tassilského neboli tárotu (*Cupressus dupreziana* A. Camus, 1926), který nese registrační číslo 1 (srovnej Abdoun & Beddiaf 2002, Farjon 2005). Dva kusy (holotypus a paratypus No. 1) jsem sbíral před západem slunce na relativně delších travinách, po kterých v tu dobu aktivně šplhaly, dva další (paratypy No. 2 a 3) byly nalezeny na nízké bylinné vegetaci tvořené převážně travinami a pelyňky (*Artemisia* spp.) (Vladislav Malý, ústní sdělení).

Rod *Pharaonus* je druhově jen málo početný. Včetně zde nově popsaneho známe dosud jen šest druhů. Rozšíření tohoto rodu tvoří pouštní a polopouštní biotopy oblasti Maghrebu

(Alžírsko, Egypt, Libye, Tunisko) včetně Súdánu, zemí Levanty (Izrael, Jordánsko, Sýrie), jihovýchodního Turecka, Íráku, Íránu, Kuvajtu, Zakavkazí (Arménie), Afghánistánu a střední Asie (Kazachstán, Tádžikistán, Turkmenistán, Uzbekistán) (Baraud 1985, Medvedev 1949, Machatschke 1972, Nikolajev 1987, Reitter 1903 a Zorn 2006). Nedospělá stádia jsou známa jen u druhu *Ph. caucasicus* (Reitter, 1888), jehož larvu popsali Kalashian & Soukiassian (1991). Z biologie víme zatím jen velmi málo. Dospělci jsou aktivní za dne nebo za soumraku a živí se různými rostlinami. Larvy žerou kořeny rostlin a mají pravděpodobně jednoletý životní cyklus (Iablokoff-Khuzorian 1967, Medvedev 1949). Jednou z živných rostlin druhů *Ph. caucasicus* a *Ph. semenowi* jsou rostliny rodu *Calligonum* (Begov 2007, Khanjyan 2004). Druh *Ph. varicoloreus* je považován v severovýchodním Turecku za škůdce bavlny (Karaat & Göven 1985).