

DESCRIPTION OF TWO NEW SPECIES FROM THE
ANTHAXIA WINKLERI SPECIES-GROUP
(Coleoptera, Buprestidae)

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INTRODUCTION

The examination of numerous specimens received in preparation for a revision of the *Anthaxia (Haplanthaxia) winkleri* Obenberger, 1914 species-group, has allowed us to identify a large number of specimens that show slight but constant differences from the remaining species that presently compose the group; in consideration of the time that such revision will take, mostly due to the need of careful study of the genitalia of component species, two new species, i.e. *Anthaxia (Haplanthaxia) pinda* Bílý & Baiocchi, 2009 from the United Arab Emirates and Oman, and *A. (H.) nabataea* Magnani & Baiocchi (in press) from Jordan, have recently been described (Bílý & Baiocchi 2009; Magnani & Baiocchi in press), while further undescribed species from various localities of the Middle East will eventually be published. In this paper we propose two new species and offer comments on their placement and relationships.

Note: locality data of all specimens are cited verbatim with comments in [square brackets]; data from separate labels are divided by slash (/). All photographs by D. Baiocchi (not in scale).

***Anthaxia (Haplanthaxia) k a l a l a e* n. sp.**

SPECIMENS EXAMINED. Holotype: ♂, Iran, (Fārs), W Sarvestān, (40 km NW Fasā), 1730 m., Mian Jangal, N29°09'33.7" E53°24'16.7", 18.IV.2006, D. Baiocchi leg./ex larva

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Pistacia sp.: 8.V.2006. Allotype: ♀, Iran, (Fārs), W Sarvestān, (40 km NW Fasā), 1730 m., Mian Jangal, N29°09'33.7" E53°24'16.7", 15.IV.2007, D. Baiocchi leg./ex larva *Pistacia* sp.: 25.VI.2007. Paratypes: 1 ♂, S Iran, 30 km E Kazerun, 1300 m, 8-10.VI.1973/Loc. no. 229 Exp. Nat. Mus. Praha; 1 ♂, [Iraq], Kurdistan, Sakláva [Shaqlawa] Dr. Kálová (original type of *A. kalalae* in Obenberger's coll.); 1 ♀, Perse: Esfahan (type of *A. is-pahanensis* [nomen nudum] in Obenberger's coll.); TURCHIA, ADIYAMAN, Besni, m.750-950, G. Magnani, 16.V.1997 / ex larva *Pistacia vera*: 1 ♂ 23.VI.1997, 1 ♂ 1 ♀ 27.VI.1997, 1 ♂ 3.VII.1997, 1 ♂ 10.VII.1997, 2 ♂ 16.VII.1997, 1 ♂ 9.VIII.1997, , 1 ♀ 15.VIII.1997; TURCHIA, MARAŞ, Pazarcik, 29/30.V.1983, Leg. G. Magnani / Ex Larva *Pistacia vera*: 1 ♂ 2 ♀♀ 17.VI.1983, 1 ♂ 28.VI.1983, 1 ♀ 22.VII.1983; TURKEY, (Kahramanmaraş), 12 Km E Pazarcik, 37°29'N 37°25'E, 960 m., 15-16.VII.2007, D.Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♀ 3.VI.2009, 1 ♀ 11.VI.2008, 1 ♂ 13.VI.2008, 2 ♂♂ 16.VI.2008, 1 ♂ 1 ♀ 17.VI.2008, 2 ♂♂ 19.VI.2008, 2 ♀♀ 20.VI.2008, 2 ♂♂ 1 ♀ 21.VI.2008, 2 ♂♂ 22.VI.2008, 1 ♂ 23.VI.2008; TURKEY, (Kahramanmaraş), 10 Km E Pazarcik, 37°30'N 37°23'E, 950 m., 15.VII.2007, D.Baiocchi leg. / ex larva *Pistacia vera*: 1 ♀ 18.VI.2008, 1 ♀ 19.VI.2008, 1 ♀ 3.VI.2009, 1 ♂ 1 ♀ 11.VI.2009, 2 ♂♂ 1 ♀ 17.VI.2009; 1 ♂, TURKEY – Kahramanmaraş, 10 km N Pazarcik, 3 km road for Araban, 950 m, *Pistacia*, 15-16.VII.2007, VII.2009, M.Gigli legit; 1 ♂, TURKEY – Kahramanmaraş 10 km N Pazarcik, 3 km road for Araban, 950 m, *Pistacia*, 15-16.VII.2007 → 6.VI.2008, M.Gigli legit; 7 ♂♂ 2 ♀♀, TURKEY, Pazarcik – Ganidagi, 37°28.733'N 37°25.872'E, 11.VI.2008, 1000 m/m, M. Kafka lgt.; TURKEY, Pazarcik – Ganidagi, 37°28.733'N 37°25.872'E, 11.VI.2008, 1000 m/m, M. Kafka lgt., ex larva: 4 ♂♂ VI.2008, 4 ♂♂ VII.2008, 1 ♂ VIII.2008, 4 ♀♀ VII.2008; 2 ♂♂, TURKEY, Pazarcik – Ganidagi, 37°28.733'N 37°25.872'E, 11.VI.2008, 1000 m/m, R. Dvořák lgt.; 18 ♂♂ 14 ♀♀, TURKEY, Pazarcik – Ganidagi, 37°28.733'N 37° 25.872'E, 13.VI.2008, [M. Škorpík lgt.]; 1 ♂, [Turkey], Gaziantep, 1972, Antepfistigi; 1 ♀, IRAK, Mosul, 23.V.1969, ex *Pistacia vera*, leg. H. Knopf; 1 ♂, N Iraq, Knopf leg., ex larva *Pistacia* sp.; Iraq, Mosul, Knopf, ex larva *Pistacia* sp., 1 ♂ 2.VI.68; Iraq, VI, Knopf, ex larva *Pistacia* sp., 1 ♂; Iraq, Hathra, Knopf, ex larva *Pistacia* sp., 2 ♀♀ 10.VI.68; Iraq, Hathra, Knopf, ex larva *Pistacia* sp., 2 ♀♀ 23.V.69; IRAN, Kerman, Ferdows-e-Esfandeq m. 1730, (70 km W Jiroft), 20.IV.2007, leg. G. Magnani /ex larva *Pistacia* sp.: 1 ♀ 29.IV.2007, 2 ♂♂ 14.V.2007, 3 ♂♂ 15.V.2007, 2 ♀♀ 15.V.2007, 3 ♂♂ 16.V.2007, 1 ♀ 16.V.2007, 1 ♂ 21.V.2007, 1 ♂ 23.V.2007, 1 ♀ 23.V.2007, 2 ♀♀ 24.V.2007, 1 ♀ 26.V.2007, 2 ♀♀ 7.VI.2007, 1 ♂ 14.VI.2007, 5 exx. 13.V.2007, 1 ex. 11.VI.2007, 2 exx. 20.VI.2007, 1 ex. 26.VI.2007; IRAN, Kerman, 25 km E Ferdows m. 1720, (45 km W Jiroft), 20.IV.2007, leg. G. Magnani / ex larva *Pistacia* sp.: 1 ♂ 26.V.2007; IRAN, Kerman, 30 km E Ferdows m. 1600, (40 km W Jiroft), 20.IV.2007, leg. G. Magnani / ex larva *Pistacia* sp.: 1 ♀ 26.V.2007, 1 ex. 28.VII.2007; IRAN, Lorestan, m. 1500, 5-10 km SW Dorud, 21-23.V.2005, leg. G. Magnani /ex larva *Pistacia* sp.: 4 ♂♂ 1 ♀ 17-30.VI.2005; IRAN, Lorestan, m. 1500, 10-15 km SW Dorud, 30.IV.2007, leg. G. Magnani /ex larva *Pistacia* sp.: 1 ♂ 1 ♀ 28.VII.2007, 2 ♂♂ 2 ♀♀ 3.IX.2007; IRAN, Lorestan, m. 1500, 10-15 km SW Dorud, 30.IV.2007, leg. G. Magnani /ex larva *Pistacia* sp.: 1 ♂ 1 ♀ 28.VII.2008, 1 ♂ 4 ♀♀ 30.VII.2008, 1 ♀ 8.VI-II.2008, 3 exx. 21.VII.2007, 4 exx. 22.VII.2007, 4 exx. 28.VII.2007; IRAN, Fārs, 1850 m., Sivand N. Shiraz, 14.V.2005, leg. G. Magnani /ex larva *Pistacia* sp.: 3 ♂♂ 1 ♀ 20.VII.2006, 1 ♂ IX.2006; IRAN, Fārs, 1850 m., 14 km. NW Forg, 16.IV.2007, leg. G. Magnani /ex larva *Pistacia* sp.: 1 ♀ 31.V.2007; IRAN, Fārs, 40 Km. N Fasā, Mian Jangal, 1750 m., 15.IV.2007, leg. G. Magnani /ex larva *Pistacia* sp.: 1 ex. 28.VII.2007; IRAN, Yasd, 2100 m., 40 km. SW Harat, Bare-Shadi, 2-3.VII.2004, leg. C. Holzschuh, (beating *Pistacia* sp., personal communication) : 1 ♂, 4 exx.; S. Iran, Fārs, Sivand, 30°06'N 52°28'E, 14.V.2005, m. 1800, leg. D. Gianasso/ex larva *Pistacia* sp.: 1 ♂ 18.V.2005, 2 ♂♂ 3.VI.2005, 1 ♂ 16.VII.2006, 1 ♀ 15.VI.2005, 1 ♀ VI.2006; S. Iran, Fārs, 40 km NO Fasā, 18.IV.2006, m. 1750, leg. D. Gianasso / ex larva *Pistacia* sp.: 1 ♀ 2.VI.2007; S. Iran, Fārs, 40 km NO Fasā, 15.IV.2007, m. 1750, leg. D. Gianasso/ex larva *Pistacia* sp.: 1 ♀ 11.VII.2008; Iran, (Fārs), 40 km N Fasā, Mian Jangal, 1750 m., N29°10' E53°23', 2.V.2009,

D. Gianasso leg. / ex larva *Pistacia* sp.: 1 ♂ 24.V.2009, 1 ♂ 26.V.2009, 1 ♂ 14.VII.2009, 1 ♀ 21.V.2009, 1 ♀ 31.V.2009; S. Iran, Fārs, 14 km NO Forg, 16.IV.2007, m. 1540, leg. D. Gianasso / ex larva *Pistacia* sp.: 1 ♂ 23.V.2007, 1 ♀ 22.VI.2007; S. Iran, Kerman, 30 km NNE Jiroft, 21.IV.2007, m. 1750, leg. D. Gianasso / ex larva *Pistacia* sp.: 1 ♂ 28.V.2007, 1 ♀ 16.V.2007; S. Iran, Kerman, 2 km NNE Jiroft, 21.IV.2007, m. 2045, leg. D. Gianasso / ex larva *Pistacia* sp.: 1 ♂ 16.VI.2007; 1 ♂, SE IRAN, Kerman, Maskoon (NE di Jiroft), 28°55'N 57°53'E, 24.IV.2006, m. 1830, Leg. D. Gianasso; S. Iran, Kerman, Ferdows m. 1730, (70 km O Jiroft), 20.IV.2007, leg. D. Gianasso/ex larva *Pistacia* sp.: 1 ♂ 22.V.2007, 1 ♀ 24.IV.2007, 1 ♀ 22.V.2007, 1 ♀ 4.VI.2007, 1 ♂ 6.VII.2008; W Iran, Lorestan, 10 km SW Dorud, 21.V.2005, m. 1500, leg. D. Gianasso / ex larva *Pistacia* sp.: 1 ♂ 21.V.2005, 3 ♂♂ 31.V.2005, 2 ♂♂ 3.VI.2005, 2 ♂♂ 9.VI.2005, 1 ♂ 15.VI.2005, 1 ♂ 29.VI.2005, 1 ♂ 30.VI.2005, 1 ♂ 11.VII.2005, 1 ♂ 13.VII.2005, 2 ♂♂ 16.VII.2005, 2 ♂♂ 3.VIII.2005, 2 ♀♀ 31.V.2005, 3 ♀♀ 3.VI.2005, 1 ♀ 6.VI.2005, 1 ♀ 8.VI.2005, 2 ♀♀ 9.VI.2005, 1 ♀ 10.VI.2005, 2 ♀♀ 11.VI.2005, 2 ♀♀ 12.VI.2005, 1 ♀ 30.VI.2005, 1 ♀ 12.VII.2005, 1 ♀ 15.VII.2005, 1 ♀ 16.VII.2005, 1 ♀ 20.VII.2005, 1 ♀ 28.VII.2005, 1 ♀ 30.VII.2005, 1 ♀ 3.VIII.2005, 1 ♀ 30.VIII.2005; W Iran, Lorestan, 10 km SW Dorud, 2-5.V.2006, m. 1500, leg. D. Gianasso / ex larva *Pistacia* sp.: 1 ♂ 19.VI.2006, 1 ♂ 20.VI.2006, 1 ♂ 23.VI.2006, 1 ♂ 28.VI.2006, 1 ♂ 2.VII.2006, 1 ♂ 8.VII.2006, 1 ♂ 9.VII.2006, 1 ♂ 10.VII.2006, 1 ♂ 12.VII.2006, 1 ♂ 13.VII.2006, 1 ♂ 28.VII.2006, 2 ♂♂ 30.VII.2006, 1 ♂ 23.VI.2007, 1 ♀ 24.VI.2006, 2 ♀♀ 3.VII.2006, 1 ♀ 19.VI.2007, 1 ♀ 1.VII.2007, 1 ♀ 2.VII.2007, 1 ♀ 7.VII.2007, 1 ♀ 8.VII.2007; W Iran, Lorestan, 10 km SW Dorud, 30.IV.2007, m. 1500, leg. D. Gianasso / ex larva *Pistacia* sp.: 1 ♂ 20.V.2007, 1 ♂ 21.VI.2007, 1 ♂ 23.VI.2007, 1 ♂ 28.VI.2007, 1 ♂ 6.VII.2007, 2 ♂♂ 10.VII.2007, 1 ♂ 28.VII.2007, 1 ♀ 20.V.2007, 1 ♀ 24.VI.2007, 1 ♀ 6.VII.2007, 2 ♀♀ 10.VII.2007, 2 ♀♀ 14.VII.2007, 1 ♀ 15.VII.2007, 2 ♀♀ 22.VII.2007, 1 ♀ 31.VII.2007, 1 ♀ 1.VIII.2007, 1 ♀ 5.VIII.2007, 1 ♀ 16.VIII.2007, 1 ♀ 1.VII.2009; 1 ♂, IRAN, Khash, Gohr-Kuh, 5.V.1983, on Pistachio; IRAN, Fārs, 1850 m., env. Sivand, 30°06'N 52°58'E, 14.V.05, D. Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♂ 21.VI.2006, 1 ♂ 28.VI.2006, 1 ♂ 4.VII.2006, 1 ♂ 7.VII.2006, 1 ♂ 24.VII.2006, 1 ♀ 9.VII.2005, 1 ♀ 20.V.2007; IRAN, (Lorestān), 1500 m., 10-15 Km SW Dorud, 33°13'48.0''N 049°59'20.8''E, 21-23.V.2005, D. Baiocchi leg./ex larva *Pistacia* sp.: 1 ♂ 9.V.2005, 1 ♂ 2.VII.2005, 2 ♂♂ 30.VII.2005, 1 ♂ 30.VI.2006, 1 ♂ 8.VII.2006, 1 ♀ 3.VIII.2005, 1 ♀ 10.VIII.2005, 1 ♀ 14.VIII.2005, 1 ♀ 30.VI.2006, 1 ♀ 2.VII.2006, 1 ♀ 7.VII.2006, 1 ♀ 9.VII.2006; IRAN, (Lorestān), 1500 m., 10-15 Km SW Dorud, 33°13'48.0''N 049°59'20.8''E, 2.V.2006, D. Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♂ 29.V.2006, 1 ♂ 25.VI.2006, 1 ♀ 26.VI.2006, 1 ♂ 28.VI.2006, 1 ♂ 30.VI.2006, 1 ♂ 6.VII.2006, 1 ♂ 7.VII.2006, 1 ♂ 8.VII.2006, 1 ♂ 10.VII.2006, 1 ♂ 14.VII.2006, 1 ♂ 24.VII.2006, 1 ♀ 30.IV.2007, 1 ♂ 12.VI.2007, 1 ♂ 2 ♀♀ 18.VI.2007, 1 ♀ 24.VI.2006, 2 ♀♀ 28.VI.2006, 1 ♀ 4.VII.2006, 2 ♀♀ 6.VII.2006, 2 ♀♀ 14.VII.2006, 1 ♂ 16.VII.2007, 2 ♀♀ 24.VII.2006, 3 ♀♀ 6.VIII.2006, 1 ♀ 17.VIII.2006, 1 ♂ 1 ♀ 29.VIII.2006; IRAN, (Lorestān), 1500 m., 10-15 Km SW Dorud, 33°13'48.0''N 049°59'20.8''E, 30.IV.2007, D. Baiocchi leg. / ex larva *Pistacia* sp.: 5 ♂♂ 18.VI.2007, 1 ♀ 24.VI.2007, 1 ♀ 25.VI.2007, 3 ♀♀ 26.VI.2007, 1 ♂ 27.VI.2007, 1 ♂ 1 ♀ 28.VI.2007, 1 ♂ 29.VI.2007, 1 ♀ 30.VI.2007, 1 ♂ 1 ♀ 7.VII.2007, 1 ♀ 9.VII.2007, 2 ♂♂ 1 ♀ 11.VII.2007, 1 ♂ 1 ♀ 13.VII.2007, 1 ♂ 2 ♀♀ 22.VII.2007, 1 ♀ 26.VII.2007, 2 ♀♀ 29.VII.2007, 2 ♀♀ 2.VIII.2007, 1 ♂ 25.VIII.2007, 1 ♀ VIII.2007; IRAN, (Lorestān), 1500 m., 10-15 Km SW Dorud, 33°13'48.0''N 049°59'20.8''E, 7.V.2009, D. Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♀ 11.V.2009, 1 ♂ 27.V.2009, 1 ♂ 1 ♀ 3.VI.2009, 1 ♂ 1 ♀ 18.VI.2009, 1 ♂ 26.VI.2009, 1 ♀ 28.VI.2009, 1 ♀ 4.VII.2009, 1 ♂ 9.VII.2009, 2 ♀♀ VII.2009, 1 ♂ 3.VIII.2009; 2 ♀♀, Iran, (Fārs), W Sarvestān, (40 km NW Fasā), 1730 m., Mian Jangal, N29°09'33.7'' E53°24'16.7'', 15-16.V.2005, D. Baiocchi leg.; Iran, (Fārs), W Sarvestān, (40 km NW Fasā), 1730 m., Mian Jangal, N29°09'33.7'' E53°24'16.7'', 2.V.2006, D. Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♂ 6.V.2006, 4 ♂♂ 3 ♀♀ 9.VI.2007, 1 ♂ 6.VI.2006, 1 ♂ 28.VI.2006, 1 ♂ 11.VII.2006, 1 ♀ 8.V.2006, 1 ♀ 28.V.2006, 1 ♀ 29.V.2006, 1 ♀ 22.VI.2006, 1 ♀

2.VII.2006; Iran, (Färs), W Sarvestän, (40 km NW Fasä), 1730 m., Mian Jangal, N29°09'33.7" E53°24'16.7", 15.IV.2007, D. Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♂ 10.V.2007, 3 ♂♂ 13.V.2007, 5 ♂♂ 1 ♀ 14.V.2007, 2 ♂♂ 6 ♀♀ 17.V.2007, 1 ♂ 1 ♀ 19.V.2007, 2 ♂♂ 1 ♀ 18.VI.2007, 1 ♂ 27.VI.2007, 1 ♀ 19.VII.2007, 2 ♀♀ 31.VII.2007, 1 ♂ 8.VIII.2007, 2 ♂♂ 25.VI.2008, 1 ♀ VI.2009, 1 ♂ 2 ♀♀ 7.VII.2008, 1 ♀ 8.VII.2008, 2 ♂♂ 14.VII.2008, 1 ♂ 1 ♀ 16.VII.2008, 1 ♂ 31.VII.2008, 1 ♂ 21.VI.2009; Iran, (Färs), W Sarvestän, (40 km NW Fasä), 1730 m., Mian Jangal, N29°09'33.7" E53°24'16.7", 5.V.2008, D. Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♀ 23.VI.2008, 1 ♀ 8.VIII.2008; Iran, (Färs), W Sarvestän, (40 km NW Fasä), 1730 m., Mian Jangal, N29°09'33.7" E53°24'16.7", 2.V.2009, D. Baiocchi leg./ex larva *Pistacia* sp.: 2 ♀♀ 14.V.2009, 1 ♂ 1 ♀ 16.V.2009, 1 ♀ 19.V.2009, 1 ♂ 21.V.2009, 1 ♂ 22.V.2009, 2 ♂♂ 2 ♀♀ 23.V.2009, 1 ♂ 1 ♀ 26.V.2009, 2 ♀♀ 27.V.2009, 1 ♀ 31.V.2009, 1 ♂ 1 ♀ V.2009, 1 ♀ 3.VI.2009, 1 ♂ 9.VII.2009; IRAN, (Kermän), 1750 m., 30 Km NNE Sabzvārän, 28°49'N – 57°52'E, 21.IV.2007, Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♀ 20.V.2007, 1 ♀ VI.2007, 2 ♀♀ 1 ♂ VII.2007; IRAN, (Kermän), 2045 m., 2 Km N Mohammadabad, 28°55'N – 57°53'E, 24.IV.2006, Baiocchi leg. / ex larva *Pistacia* sp.: 1 ♂ 18.VI.2007; IRAN, (Kermän), 1730 m., Ferdows-e Esfandaqeh, (W Sabzvārän), 28°41'N – 57°10'E, 20.IV.2007, Baiocchi leg./ex larva *Pistacia* sp.: 1 ♂ 1 ♀ 4.V.2007, 3 ♂♂ 5.V.2007, 1 ♂ 8.V.2007, 1 ♂ 12.V.2007, 1 ♀ 15.V.2007, 1 ♂ 17.V.2007, 2 ♀♀ 19.V.2007, 1 ♂ 21.V.2007, 2 ♂♂ 23.V.2007, 1 ♂ 24.V.2007, 4 ♂♂ 2 ♀♀ 25.V.2007, 1 ♂ 9.VI.2007, 1 ♀ VIII.2007; 5 ♂♂ 6 ♀♀, IRAN, CS, Kerman prov., RAFSANIAN [Rafsanjan], from *Pistacia*, 20.V.2004, Hamid Hashemi Rad leg.; 2 ♂♂, IRAN, CS, Kerman prov., RAFSANIAN [Rafsanjan], from *Pistacia*, 20.V.2004, Hamid Hashemi Rad leg.; 2 ♂♂ 1 ♀, IRAN SW, Buyer Ahmad-o-Kühgölüye prov., SISAHT (6 km E), 2200 m., C. Zagros mts., 11-16.VII.2003, I. Jeniš leg.; 1 ♂, S. IRAN, prov. Kermän, 1767 m., 30 Km NNE Sabzvārän (Jiroft), N 28°49' E 57°52', 20.VII.2004, leg. Petr Kabátek /*Pistacia* sp.: 1 ♀, IRAN SW, Buyer Ahmad-o-Kuhgiluye prov., Yasuj env., 9 km S, 28-30.VI.2003, 1800-2300 m., Ivo Jeniš leg.; 1 ♂, IRAN, YAZD, Shir Kuh, 5 Km S. Taft, 23.V.2008, 1600-1700 m., leg. MÜHLE, (979); 1 ♂, [Iran], Nour, 26.VIII.1981, Abai; 30 ♂♂ 16 ♀♀, IRAN-NW, Kermanshahan prov., Kermanshah (35 km NEE): CHALABEH (15 km W Bisotun) 31.V-1.VI.2006, S. Prepsl leg.; 1 ♂, N-Iran, Prov. Teheran, Karaj Uni. of Agriculture, 35°47'97"N 51°00'25"E, 25.05-08.06.2008, leg. A. Skale, HF, LF (00).

The holotype, allotype and some paratypes are deposited in D. Baiocchi collection (Rome, Italy); paratypes in the following collections: National Museum of Prague (Czech Rep.), Plant Pests and Diseases Research Institute (Tehran, Iran), Zoological Institute - Russian Academy of Sciences (St. Petersburg, Russia), Zoological Museum of the University of Rome "La Sapienza" (Rome, Italy), C. L. Bellamy (Sacramento, U.S.A.), S. Bílý (Prague, Czech Rep.), M. Gigli (Rome, Italy), D. Gianasso (Castelnuovo Don Bosco, Italy), C. Holzschuh (Wien, Austria), F. Izzillo (Naples, Italy), M. Kafka (Neratovice, Czech Rep.), V. Kubáň (Brno, Czech Rep.), A. Liberto (Rome, Italy), G. Magnani (Cesena, Italy), H. Mühle (Munich, Germany), M. Niehuis (Albersweiler, Germany), G. Novak (Wien, Austria), S. Prepsl (Brno, Czech Rep.), and M. Škorpík (Lukov, Czech Rep.).

HABITUS. Species of medium to large size, wedge-shaped; colour bright copper, slightly more bronze on elytra with slight greenish tinge on head and pronotum; antennae, legs and tarsi with strong greenish tinge.

DESCRIPTION. Holotype (fig. 1): body slender and vaulted; length from anterior pronotal margin to elytral apex: 6.32 mm, maximum width at humeral height: 2.31 mm, length-width ratio: 2.78 times as long as wide.

Head (figs 9, 13) large, as wide as anterior pronotal margin; eyes large, slightly projecting beyond outline of head, upper lobe slightly acute; inner ocular margins S-shaped and distinctly converging on the vertex; frons wide, slightly, widely depressed; vertex wide, flat, 0.47 times as wide as width of head; sculpture of vertex very shallow, composed of irregular polygonal cells with small indistinct central pore and glossy microsculptured bottom; frontal sculpture consisting of rather rounded, deep cells with glossy microsculptured bottom and tiny, slightly eccentric pore; lower half of frons and frontoclypeal area cells more widely separated by finely microsculptured interspaces, upper frontal half cells more tight, narrowly bordered; clypeus slightly prominent, wide, short, flattened anteriorly, with deeply, sinuately incised anterior edge; pubescence of head white, short, dense, recumbent on vertex, straight and erect on frons, distinctly thicker along lower half of the inner ocular margins; at the anterior clypeal angles are present long and straight whitish bristles.

Antennae (figs 9, 40) slender, slightly longer than pronotum (1.06 times longer than middle pronotal length); antennomeres 3-10 rather flat, slightly longer than wide; from fifth antennomere on, basal portion of each antennomere distinctly more slender starting with antennomere 5; scape long, club shaped, with inner edge distinctly humped and external margin straight; pedicel short, subcylindrical, nearly 1.5 times longer than wide, with inner margin gibbous; third antennomere subconical, slightly longer than pedicel; antennomeres 4-6 subtriangular, antennomeres 7-10 subtrapezoidal; last antennomere rhomboid.

Pronotum (fig. 9) subparallel, rather long, vaulted, 1.44 times wider than long, with maximum width at mid length; anterior margin shallow, feebly bilobate, with weak central lobe; lateral margins slightly incurved on anterior half and subparallel on posterior half, not incurved before the straight rear angles; posterior margin slightly arched backward in middle; one very shallow median longitudinal groove present on anterior half; lateroposterior depressions wide and shallow, rather transverse; sculpture mainly shallow, composed of irregular cells with uneven glossy bottom and eccentric pore; between central discal area and lateral 1/3 cells are more contiguous, aligned, with thicker, darker borders.

Scutellum subpentagonal, as long as wide; depressed in the middle.

Elytra wedge shaped, long, vaulted, 2.15 times longer than wide, subparallel from basal 1/6, distinctly narrowed to middle, carinate, straightly tapering at apical 1/3; elytral apex separately, obtusely round-

ed; basal depressions wide, shallow, not reaching the scutellum; humeral swellings poorly developed; margins shallow and narrow, weakly widened, distinctly serrate on apical third; epipleura wider at base, then narrow, parallel, expiring at the apex; surface brilliant, finely microsculptured, slightly more coarse on the basal portion.

Legs long, slender, brilliant, with a greenish tinge, very superficially sculptured; foretibiae weakly incurved; foretarsomeres 1-4 equal, slightly shorter than 5; mesotibiae straight, with inner margin feebly, obtusely serrate on distal 1/2, and one strong, obtuse apical spur; mesotarsomere 1 as long as 5; tarsomeres 2-4 all with lengths subequal, each shorter than 1; metatibiae (fig. 36) flattened, very slightly incurved, slightly enlarged at mid length, with inner margin sinuate, obtusely serrate on distal 1/3, with strong obtuse apical spur; metatarsomere 1 longer than each of 2-5; claws strong, rather short, thick, slightly enlarged at base.

Ventral side (fig. 4) strongly vaulted, of same color as dorsal side; anterior margin of prosternum very slightly incurved; prosternal process rather wide, with moderately incurved lateral sides and posterior apex long, not particularly sharp; prosternal sculpture shallow, strongly, horizontally stretched along anterior margin, irregular on lateral welding, smaller, rounded in middle, and slightly lengthened on prosternal process; remaining sculpture of prosternal ventrites, including coxae, rather regular, homogenous; inner lateral margin of metacoxa slightly sinuate; posterior end of central metasternal welding open, slightly incurved upward; pro- and mesotrochanters unarmed, metatrochanters obtusely gibbous; sculpture of basal abdominal ventrite consisting of regular, rather deep cells; sculpture of anal ventrite stretched, roundly parallel to margins; remainder of abdominal area with irregular shallow sculpture, finely microsculptured basal surface; ventral pubescence homogeneously long, whitish and recumbent, also present on legs.

Anal ventrite (fig. 17) longer than wide, slightly more slender, depressed at apex which is narrow, neatly truncate, with deeply serrate lateral margins.

Aedeagus very long, slender, 8.5 times longer than wide, mildly sinuate; phallobase subparallel; lateral parameres (fig. 28) distinctly widened in middle and narrowed on anterior 1/3; apical part slightly enlarged, obtusely pointed, with narrow but distinct setigerous areas located on lateral edges, shortly before apex; median lobe (fig. 32) with basal 1/2 fibrous, strongly vaulted, cream-coloured; apex rather thick, subtrapezoidal (figs 20, 24), strongly dark, chitinous, feebly incurved up-

ward, with smooth, microreticulate upper surface; lateral serration irregular, dark, chitinous, with rather widely toothed anterior $\frac{1}{2}$, consisting of sharp, horizontal teeth strongly oriented backward, while rear portion turns into double vertical and subparallel carina ending with two prominent, slightly crenate spurs; surface between lateral serration partially grooved.

SEXUAL DIMORPHISM. The female (fig. 3) differs from the male with the more stout body, frons less depressed, antennae shorter, slightly more compact, simple metatibiae, and apex of the anal ventrite rounded, widely notched (fig. 18). Ovipositor of the allotype illustrated (fig. 44).

BIOLOGY AND DISTRIBUTION. *Anthaxia kalalae* seems to be strictly associated with plants of the genus *Pistacia* (Anacardiaceae); the species has never been found on flowers and the great majority of the known specimens has been reared from branches of *P. vera* L., *P. mutica* Fisch. and *P. khinjuk* Stocks; we collected some specimens on fallen dead branches of *P. mutica* in its locus typicus, together with *A. (Haplantaxia) farah* Bílý, 1983, while M. Kafka and M. Skorpik, in eastern Turkey, collected many adults of both sexes on leaves of *Pistacia* sp. at about 4-5 meters from the ground, also together with *A. farah* that seems to share the same distribution and biology; *A. kalalae* follows the distribution of its host plant and at present is known from Iran, eastern Turkey and northeastern Iraq, but it is likely to be found also in northern Syria, while in northeastern Iran and adjacent countries it is presumably replaced by *A. (Haplantaxia) judinae* Stepanov, 1954, also living on *Pistacia*.

VARIABILITY. During the study of hundreds of specimens, *A. kalalae* proved to be rather stable in its morphological characters and overall appearance, but it shows a range of unavoidable intraspecific variability; the size of males ranges from 4.50 mm x 1.60 mm to 6.64 mm x 2.40 mm (holotype 6.32 mm x 2.31 mm), while the females vary from 4.35 mm x 1.57 mm to 6.72 mm x 2.48 mm (allotype 6.04 mm x 2.24 mm); the colour of the body varies from dark bronze, like in the majority of specimens from Turkey, to a bright copper colour with greenish tinge, as in some specimens from more dry areas of Iran (*A. winkleri* and *A. farah* share this same pattern of coloration that is probably influenced by environmental factors, and turns most coppery and bright in the easternmost part of their distribution); the head may be slightly narrower or wider

er than anterior pronotal margin and the feeble incurvation of lateral pronotal margins can be more or less accentuated; the shape of the aedeagus is even more subject to variation as the lateral sinuation of the parameres can be more or less developed in a way that can mislead in identification if not coupled to other morphological features; the serration of the median lobe in *A. kalalae* is also slightly variable: the final dorsal spurs can be strong and acutely-shaped, or weaker and slightly crenate as it is in the holotype (fig. 20).

DERIVATIO NOMINIS. The name *kalalae* was presumably chosen by Obenberger to dedicate this new species to its first collector, Dr. Vlasta Kálalová di Lotti.

TAXONOMICAL NOTE. The name *kalalae*, in the genus *Anthaxia* Eschscholtz, 1829, was used for the first time by J. Obenberger in 1938, in his “Etudes sur les espèces du genre *Anthaxia* Eschsch. (Col. Bupr.)” merely mentioning it for comparison with *Anthaxia cylindrica* Abeille de Perrin, 1900; prior to this, there is no evidence in literature of any description of such species; in 1976 G. Radjabi, in “Insect Fauna of Province of Fārs (Iran)” by Mirzayans, H., A. Hashemi, H. Borumand, M. Zairi & G.H. Rajabi, included it in his “List of Buprestidae of province of Fārs”, most probably on the basis of specimens previously determined by the same Obenberger (this material, to a closer examination turned out to belong to another very similar, but different species, still unknown); in 2002 H. Borumand cited *A. kalalae* in his “List of Coleoptera in the Insect Collection of Plant Pests & Diseases Research Institute” mentioning the same Radjabi’s material, actually hosted in the collection of the Institute; in 1997 S. Bílý, in his “World Catalogue of the Genus *Anthaxia*” treated the species as a synonym of *A. (Haplantaxia) armeniaca* Obenberger, 1929, a species that we have recently synonymized with *A. (Haplantaxia) winkleri* Obenberger, 1914 (Baiocchi & Magnani 2008), and the same did C. L. Bellamy in 2008, in his “World Catalogue and Bibliography of Buprestoidea”, while the species is not quoted at all in the “Catalogue of Palaearctic Coleoptera” dated 2006; as a consequence of all this, *kalalae* must be considered a “nomen nudum” and all previous uses of this name are unavailable; being the species actually still undescribed, in the present work we will proceed to its description, and in order to assure taxonomic continuity, the name *kalalae* will be maintained. The single type designate by Oben-

berger, a male specimen collected in Shaqlawa, in north-eastern Iraq, has been examined and, since it is not complete of all its morphological parts, we decide to choose a more recent and intact individual to represent the holotype; the Obenberger's specimen will however be included in the type series as a paratype, as well as another specimen, a female also belonging to this new species, preserved in the Obenberger collection and designate by the same Obenberger as the type of *Anthaxia ispahansensis*, another undescribed species, never mentioned in known literature. A further specimen in the type series of *A. (Haplantaxia) winkleri* ssp. *farsica* Bílý, 1983 has been identified as belonging to this new species, and included in the type series.

COMPARATIVE NOTES. There are several species in the *A. winkleri* species-group very similar to *A. kalalae*; actually one of the most close ones, that also shares the same range of distribution, is *A. winkleri*. These two species have nearly always been confused; although the high degree of variability of *A. winkleri* must always be taken into consideration, the two species may be distinguished, sometimes with great difficulty, by a series of characters; since *A. winkleri* is comprised of two subspecies, *A. kalalae* has been compared with *A. winkleri* ssp. *farsica* (fig. 2), that shows more similarities, especially in the genitalia (*A. winkleri* ssp. *winkleri* is rather easily recognized for the apex of its median lobe which is sharp and smoothly lancet-shaped, while in ssp. *farsica* it is usually subparallel and angularly pointed, resembling that of *A. kalalae*); among the features that can be more diagnostic, the following ones appear to be more constant:

- 1) the sculpture of the pronotum in *A. kalalae* consists of cells with a smooth and brilliant bottom, while in *A. winkleri* ssp. *farsica* the cell bottom is finely microreticulate or, at least unevenly microsculptured;
- 2) in *A. kalalae* the vertex is narrower (about 0.47 times as wide as width of head) and the inner ocular margins are more strongly converging on the vertex, while in *A. winkleri* ssp. *farsica* the vertex is wider (about 0.55 times as wide as width of head) and the inner ocular margins are more mildly incurved on the upper portion of the frons;
- 3) the frons is always slightly and widely depressed in *A. kalalae*, while in *A. winkleri* ssp. *farsica* goes from flat with slight central groove to widely depressed;
- 4) in the aedeagus of *A. kalalae* the apex of the median lobe (figs 20, 24) is always rather thick, subtrapezoidal and obtusely pointed, as well

as feebly incurved upward, while in *A. winkleri* ssp. *farsica* (figs 21, 25) it is more subparallel, more angular, acutely pointed and more strongly bent upward; in addition the lateral serration of the median lobe in *A. kalalae* is rather irregularly, widely toothed (fig. 24), ending with spurs that can be either strong and acutely shaped or weaker and slightly crenate, while in *A. winkleri* ssp. *farsica* the lateral serration is always more regular and finely toothed (fig. 25) and the final spurs are very strong and never crenate;

5) at their larval stage the two species feed on different host plants: the larva of *A. winkleri* has always been found feeding on Rosaceae, exceptionally on *Ficus* sp. (Moraceae) and *Salix* sp. (Salicaceae), while that of *A. kalalae* feeds exclusively on *Pistacia* species; citations in literature that report *A. armeniaca* as reared from *Pistacia* in Iraq, proved to refer to *A. kalalae*.

The character states that subtly differentiate the two taxa are listed in the following table:

<i>Anthaxia (Haplanthaxia) kalalae</i> n. sp.	<i>Anthaxia (Haplanthaxia) winkleri</i> ssp. <i>farsica</i> Bílý, 1983
Body large and slender	Body usually of smaller size and proportionally more stout
Head usually as wide as anterior pronotal margin; upper lobe of eye more acute; vertex narrower (0.47 times as wide as width of head); frons always widely depressed; frontal pubescence denser, thinner, straightly erect, especially along lower inner ocular margin; clypeus weakly prominent, anterior edge deeply and sinuately incised; last antennomere rhomboid	Head of variable width, from slightly narrower to much wider than anterior pronotal margin; upper lobe of eye more obtuse; vertex wider (0.55 times as wide as width of head); frons rather variable, from flat, slightly grooved in the middle, to widely depressed; frontal pubescence thicker, more sparse, rather reclined; clypeus almost flat, anterior edge moderately, triangularly incised; last antennomere more drop-shaped
Pronotum poorly transverse, 1.44 times wider than long; anterior margin weakly bisinuate, with feeble central lobe; lateral margins poorly sinuate, with rear portion more straight; median groove on anterior portion very shallow; sculpture consisting of rather small, deep cells with uneven glossy bottom and large central grain	Pronotum more transverse, 1.6 times wider than long; anterior margin deeply bisinuate, with pronounced central lobe; lateral margins more sinuate, distinctly narrowed before anterior and rear angles; median groove absent; sculpture consisting of cells slightly larger, more shallow, with flat, duller, finely microreticulate, or at least microsculptured bottom; central grain smaller, more eccentric

Anthaxia (Haplanthaxia) kalalae n. sp. *Anthaxia (Haplanthaxia) winkleri* ssp. *farsica* Bílý, 1983

Scutellum as long as wide	Scutellum slightly wider than long
Elytral surface with distinct scale-like sculpture, smooth basally; margins shallow and narrow	Elytral surface with lighter scale-like sculpture, finely microreticulate basally; margins deep and wider
Metatibiae long, straight, flattened, slightly enlarged at mid length; inner margin slightly sinuate, feebly serrate on distal 1/3, with obtuse apical spur	Metatibiae proportionally shorter, stronger; inner edge usually more strongly sinuate, incised, acutely serrate, with stronger, more acute apical spur
Tarsomeres 5 proportionally shorter; claws rather short, thick, poorly incurved and not very acuminate	Tarsomeres 5 proportionally longer; claws more slender, incurved and more acuminate
Aedeagus wider, more sinuate; apex of median lobe less angulate, trapezoidally pointed, feebly incurved upward; lateral serration rather irregular, widely toothed; final dorsal spur from strong, acutely shaped to weak and slightly crenate	Aedeagus narrower, less sinuate; apex of median lobe subparallel, more angulate, acutely pointed, strongly bent upward; lateral serration regular, finely toothed, ending with a single, strong, never crenate dorsal spur

***Anthaxia (Haplanthaxia) s a g a r t i a n a* n. sp.**

SPECIMENS EXAMINED. Holotype: ♂, IRAN, Ispahan [Esfahān], R. Bénard 1966 /ouest Na-in [Nāīn] 3000 m / Juin. Allotype: ♀ (fig. 7), Deh Bala, Yezd [Yazd], PERSIA, 31.VII.35, 9000 ft, Coll. H. E. J. Biggs.

The holotype and allotype are deposited in the collection of the National Museum of Prague (Czech Rep.).

HABITUS. Medium to large size species; body robust, strongly vaulted, wedge-shaped; head and pronotum green, elytra golden red with green golden lustre basally and deeper red tinge on apex; legs and antennae dark green.

DESCRIPTION. Holotype ♂ (fig. 5): length from anterior pronotal margin to elytral apex: 6.25 mm, maximum width at humeral height: 2.50 mm, length-width ratio: 2.5 times longer than wide;

Head (figs 11, 15) large, slightly wider than anterior pronotal margin; eyes feebly projecting beyond outline of head, irregularly elliptic,

upper lobe distinctly narrower than lower one; inner ocular margins parallel on mid frontal area, slightly angularly converging on vertex, weakly divergent on lower portion; vertex wide, distinctly vaulted, 0.5 times as wide as width of head; frons very wide, feebly, smoothly convex, slightly flattened at middle, with two distinct, shallow, pre-antennal depressions; frontal sculpture shallow, consisting of small, homogenous, rounded cells, widely separated by finely microsculptured interspaces; cell bottom brilliant, almost entirely invaded by a large, flat grain; at lower ocular angles and on frontoclypeal area, the reticulation tends to vanish and becomes irregularly stretched, finely microsculptured, almost scale-like; clypeus (fig. 15) not prominent, short, wide, frontal edge deeply incurved, anterior angles strongly turned backward; pubescence of head thin, whitish, short, reclined on vertex and strongly erect on frons;

Antennae (figs 11, 42) slightly longer than pronotum (1.07 times longer than middle pronotal length) thick, widely triangularly expanded from antennomere 4; scape club shaped, with external margin straight and inner margin strongly gibbous; pedicel as long as wide, rather barrel shaped, with inner margin slightly more incurved; antennomere 3 subconical, 1.4 times longer than pedicel; antennomeres 4-10 strongly triangular, slightly wider than long; last antennomere subrhomboid with outer margin more angulate than the inner one.

Pronotum (fig. 11) transverse, 1.5 times wider than long, strongly vaulted, with rather bulging appearance; maximum width just behind mid length; anterior margin deeply bisinuate with prominent central lobe; lateral margins mildly incurved, very shortly narrowed before rear angles; posterior margin arched backward in middle; posterior angles slightly obtuse; discal area uniformly vaulted without median longitudinal depression; lateroposterior depressions rather shallow, slightly transversal; sculpture slightly irregular on anterior central lobe, homogenously regular on discal area, consisting of small polygonal cells with brilliant, finely microsculptured bottom and medium, slightly eccentric pore; pronotal pubescence whitish, incurved, completely reclined, more visible on frontal angles.

Scutellum slightly wider than long, vaulted, finely microsculptured;

Elytra wedge shaped, 1.88 times longer than wide, with maximum width at humeral height, narrowed to middle, mildly carinate, regularly tapered at apical 1/3; apex separately rounded; basal transverse depressions shallow, very short, present only near humeral angles; humer-

al swellings normally developed; one strong, prominent callus on the circumscutellar area; median transversal depressions at basal 1/3; basal post-scutellar tract of the suture depressed, in relief at mid length, strongly relieved on the apex; one deep preapical depression along the suture on each elytron; margins very narrow for the basal 2/3, wider, slightly serrate before the apex; epipleura widest at humeral height, expiring at the apex; surface smooth, with scaled sculpture, more punctuated, coarsely sculptured basally; surface covered with very short, transparent, semi-erect pubescence, more visible along elytral margins;

Legs long, slender; tibiae straight; tarsomeres rather narrow; foretibiae subcylindrical; foretarsomeres 1-4 of lengths subequal, last tarsomere 1.5 times longer than 1; mesotibiae subcylindrical, feebly enlarged at apex, without appreciable inner serration; mesotarsomere 1 longer of each of 2-4, slightly shorter than 5; metatibiae (fig. 38) flattened on distal 1/2, serrate, sinuately enlarged on distal 1/3, slightly incised at distal 1/5; metatarsomere 1 longer than each of 2-4, as long as 5; claws light brown, long, slender, poorly incurved, slightly enlarged at base.

Ventral side (fig. 8) strongly vaulted, dark green, slightly lighter on meso- and metasternum; prosternum strongly vaulted; anterior margin very slightly incurved at middle; prosternal process wide, subparallel, lateral margins weakly incurved, posterior apex very narrow; posterior end of central metasternal welding shortly, widely open; sculpture of ventral side of pronotum very shallow, transversally stretched along anterior prosternal margin, consisting of small, homogenous, polygonal cells with glossy bottom; sculpture of basal abdominal ventrite large, irregular, very shallow; remainder of abdominal surface finely microsculptured, with very superficial, scale-like sculpture.

Anal ventrite (fig. 19) wider than long, apical half slightly flattened, lateral margins obtusely serrate, apex smooth, slightly bisinuate, surface finely microsculptured basally, furrowed distally;

Aedeagus very long, slender, 8.27 times longer than wide, poorly sinuate, rather chitinous; phallobase parallel; lateral parameres (fig. 30) slightly wider at basal 1/2, narrowed at apical 1/5, acutely pointed but not sharp, feebly incurved inward; very narrow setigerous area hidden within pre-apical outer edge, barely visible from above, more expanded on ventral side; median lobe (fig. 34) parallel, basal 1/2 fibrous, slightly vaulted, apex (figs 22, 26) long, smooth, lancet shaped, acute but not sharp, strongly bent upward; lateral serration darker, more chitinous, anterior portion slightly stronger, consisting of horizontal, not very sharp, back-

ward-oriented teeth, posterior portion gradually turning into two slightly converging carinas, ending with inclined, multidentate spurs.

SEXUAL DIMORPHISM. The female of *Anthaxia sagartiana* (fig. 7) differs from the male with the following characters: body considerably larger, more stout, length from anterior pronotal margin to elytral apex: 7.35 mm, maximum width at humeral height: 2.95, length - width ratio: 2.49 times longer than wide; head and pronotum golden green, elytra darker red, frons slightly grooved in the middle; inner margin of metatibiae smooth, slightly incurved inward; apical 1/2 of anal ventrite more deeply depressed along the edge, apex more rounded, not bilobate as it is in the male.

BIOLOGY AND DISTRIBUTION. *A. sagartiana* is known upon a pair of specimens only, collected separately long time ago in two different localities, in the provinces of Eşfahān and Yazd, in central Iran; data labels report an altitude of 3000 meters for the holotype, and 9000 feet (about 2740 meters) for the allotype; in those areas there are several reliefs reaching such altitudes as the Sīr Kūh and the Kūh-e Māršenān; the southern and the eastern slopes of the latter one were recently visited by us, but the peak could not be reached since the area is at present an inaccessible military zone; scarce arboreal flora was found at the given altitude, but on the other hand the place remained more or less intact in its arid aspect so common in most reliefs of this semi-desertic region; more accurate field work is hoped for in the future, in order to determine the biology of this remarkable new species.

DERIVATIO NOMINIS. This new species is named after the ancient Persian tribe of Sagartians, a nomadic people that inhabited the Iranian Central Plateau, around the 6th century BC, in the area where *A. sagartiana* was found.

COMPARATIVE NOTES. Its overall aspect and several morphological features denote that *A. sagartiana* is a member of the *A. (Haplantaxia) gedrosiana* Bílý, 1983 complex, which belongs to the *A. (H.) winkleri* Obenberger, 1914 species-group; despite the smaller size, *A. gedrosiana* is the most close species to *A. sagartiana*; the characters that differentiate the two species are listed in the following table:

Anthaxia (Haplanthaxia) sagartiana
n. sp.

Anthaxia (Haplanthaxia) gedrosiana
Bílý, 1983

Body robust, strongly vaulted, 2.5 times longer than wide;

Body more slender, slightly less convex, 2.62 times longer than wide;

Head: eyes feebly projecting beyond outline of head; frons distinctly, roundly vaulted; pubescence thinner, shorter, strongly erect; antennae more finely punctuated, 1.07 longer than middle pronotal length; antennomere 3 longer than 2; median antennomeres wider than long; last antennomere rhomboid, outer margin angulate, inner margin incurved;

Head: eyes more strongly projecting beyond outline of head; frons weakly convex, with very slight median groove; pubescence thicker, slightly longer and reclined; antennae more roughly punctuated, 1.14 longer than middle pronotal length; antennomere 3 as long as 2; median antennomeres longer than wide; last antennomere more elliptical;

Pronotum more transverse (1.51 wider than long) with homogenous bulging shape; polygonal sculpture regular, homogenous; posterior margin bisinuate arching backward;

Pronotum less transverse (1.4 wider than long) with strongly convex anterior 1/2; sculpture between median and lateral sides, consisting of more elongate, contiguous cells; posterior margin regularly arched backward;

Scutellum slightly wider than long;

Scutellum distinctly wider than long;

Elytra 1.88 times longer than wide

Elytra 1.93 times longer than wide

Protibiae straight, with smooth inner margin; mesotibiae cylindrical, subparallel, inner margin not dentate, without appreciable final spur; metatibiae widened, distal 1/2 flattened with pre-apical, slightly serrate incision, weaker apical spur, and denser external bristles;

Protibiae more incurved, slightly serrate on inner margin; inner margin of mesotibiae sinuate, dentate, incised at distal 1/3, with strong apical spur formed by small fused teeth, almost comb-like; metatibiae more parallel, more widely serrate, apical spur stronger, external bristles less numerous;

Anal ventrite: lateral margins obtusely serrate on distal 1/2; apex smooth, slightly bisinuate

Anal ventrite: distal half of lateral margins slightly more narrowed, more deeply serrate; apex subrounded, not bisinuate

Aedeagus 8.27 times longer than wide, with inner margins of parameres not incised before apex (fig. 30)

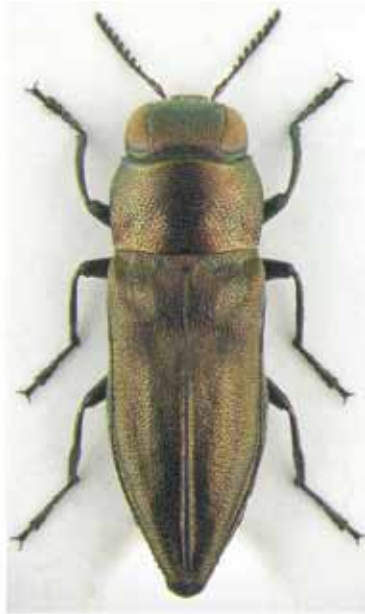
Aedeagus 7.8 times longer than wide, with inner margins of parameres distinctly notched shortly before apex (fig. 31)

ACKNOWLEDGEMENTS. We are deeply grateful to our friends J. Háyek, V. Kubáň and S. Bílý from the National Museum of Prague (Czech Rep.) for the loan of important type material from the Obenberger collection as well as material from their own collections, to Mrs. S. Serri and to Mr. H. Borumand from the Plant Pests & Diseases Research Institute of Te-

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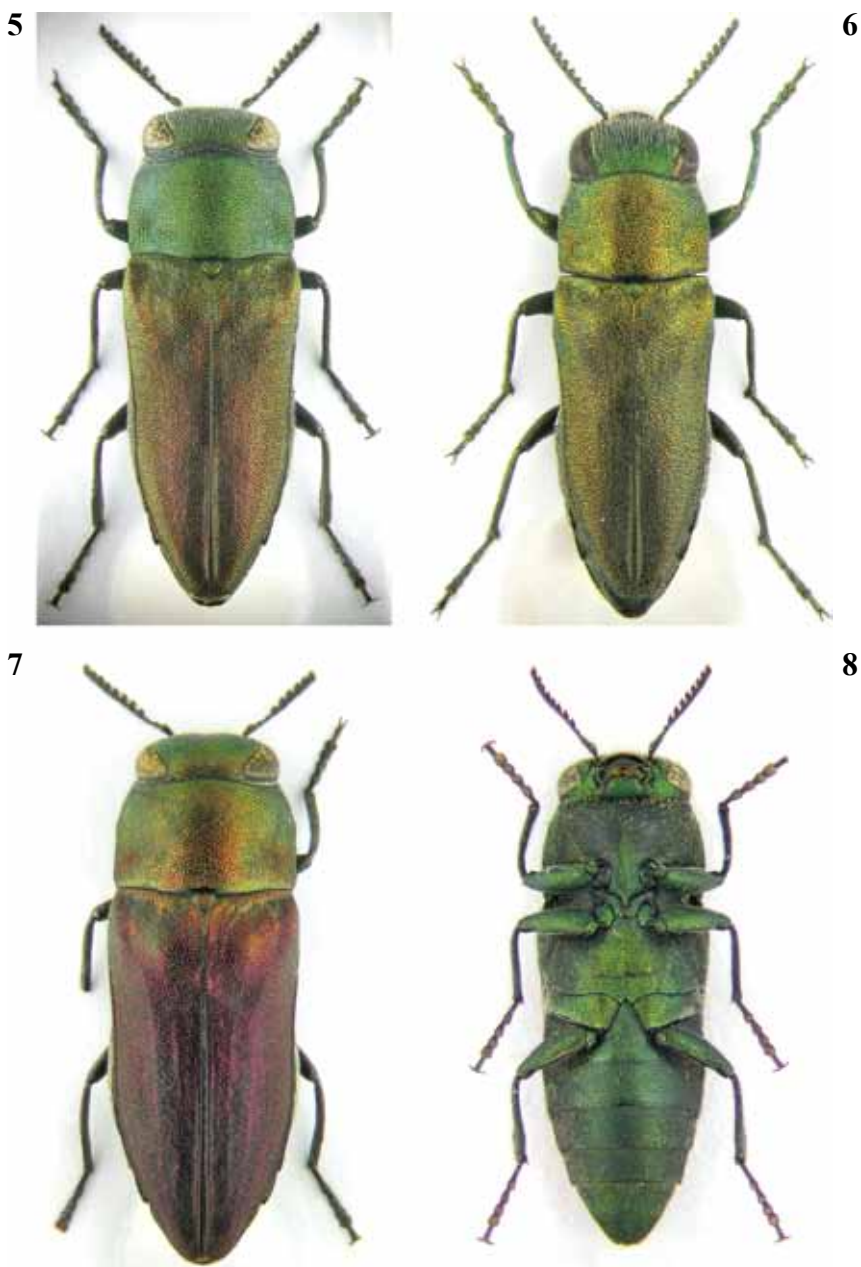
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Figs 1-4 – *Anthaxia (Haplanthaxia) kalalae* n. sp., holotype ♂, dorsal aspect (1), ventral aspect (4). *Anthaxia (Haplanthaxia) winkleri* ssp. *farsica* Bílý, 1983 ♂, Iran, Fārs prov., 40 km NW Fasā, W Sarvestān, Mian Jangal, D. Baiocchi leg., dorsal aspect (2). *Anthaxia (Haplanthaxia) kalalae* n. sp., allotype ♀, dorsal aspect (3).



Figs 5-8 – *Anthaxia (Haplanthaxia) sagartiana* n. sp., holotype ♂, dorsal aspect (5), ventral aspect (8). *Anthaxia (Haplanthaxia) gedrosiana* Bílý, 1983 ♂, Iran, Sīstān-ō-Bālūčestān prov., Bampūr, M. Kafka leg., dorsal aspect (6). *Anthaxia (Haplanthaxia) sagartiana* n. sp., allotype ♀, dorsal aspect (7).

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Figs 9-10 – Dorsal aspect of anterior portion of body: *Anthaxia (Haplanthaxia) kalalae* n. sp., holotype ♂ (9). *Anthaxia (Haplanthaxia) winkleri* ssp. *farsica* Bilý, 1983 ♂ (10).

11



12



Figs 11-12 – Dorsal aspect of anterior portion of body: *Anthaxia (Haplanthaxia) sagartiana* n. sp., holotype ♂ (11). *Anthaxia (Haplanthaxia) gedrosiana* Bily, 1983 ♂ (12).

13



14



Figs 13-14 – Frons: *Anthaxia (Haplanthaxia) kalalae* n. sp., holotype ♂ (13). *Anthaxia (Haplanthaxia) winkleri* ssp. *farsica* Bily, 1983 (14).

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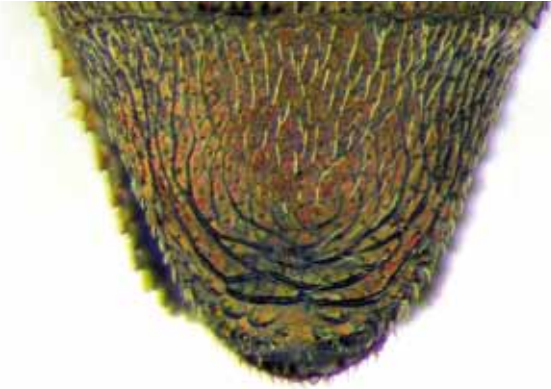


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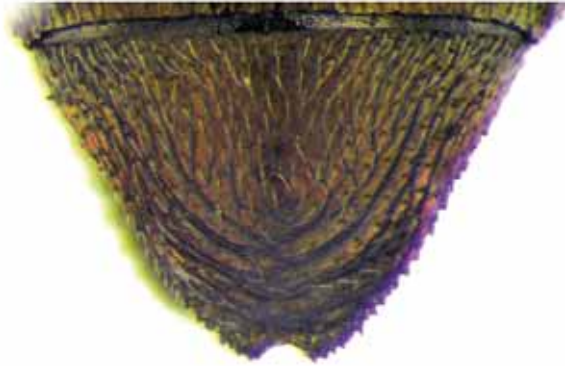


Figs 15-16 – Frons: *Anthaxia (Haplanthaxia) sagartiana* n. sp., holotype ♂, (15). *Anthaxia (Haplanthaxia) gedrosiana* Bílý, 1983 (16).

17



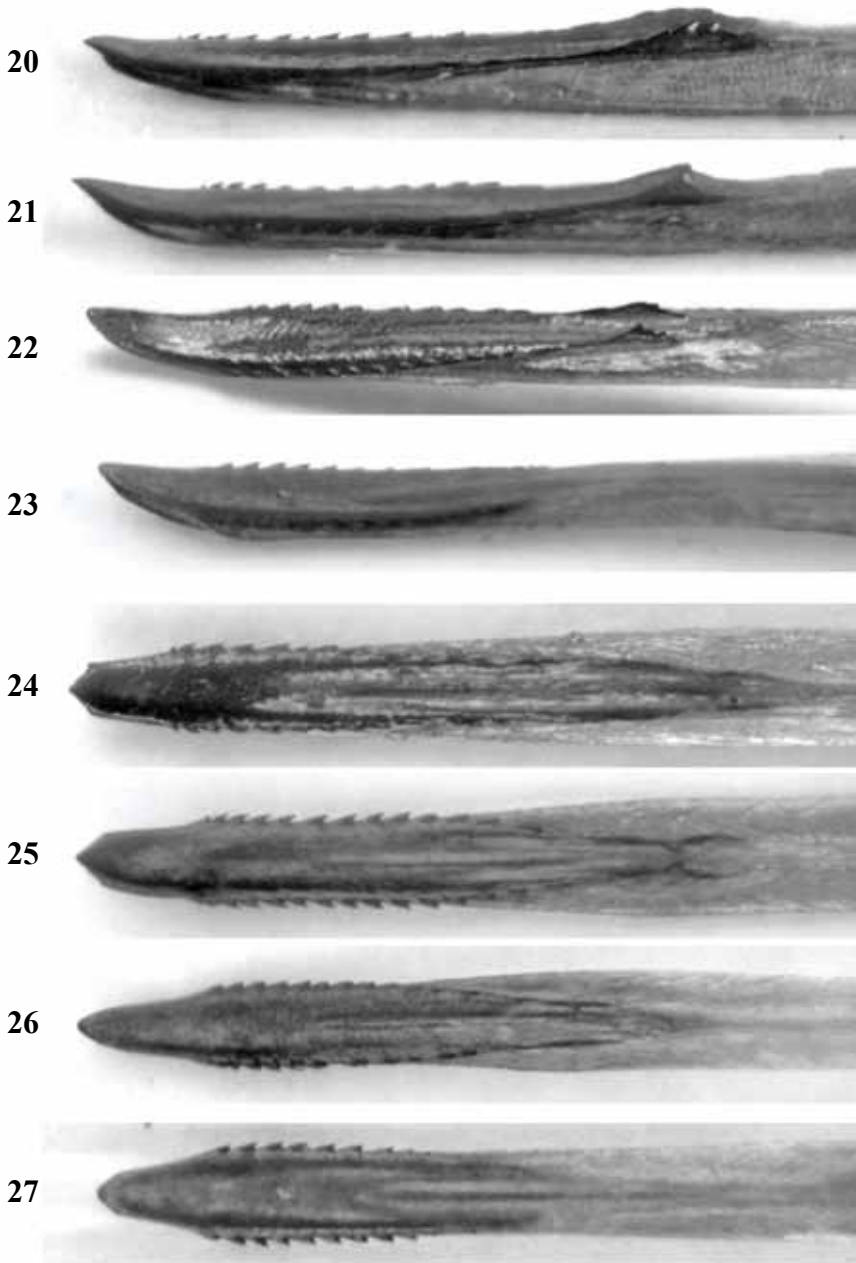
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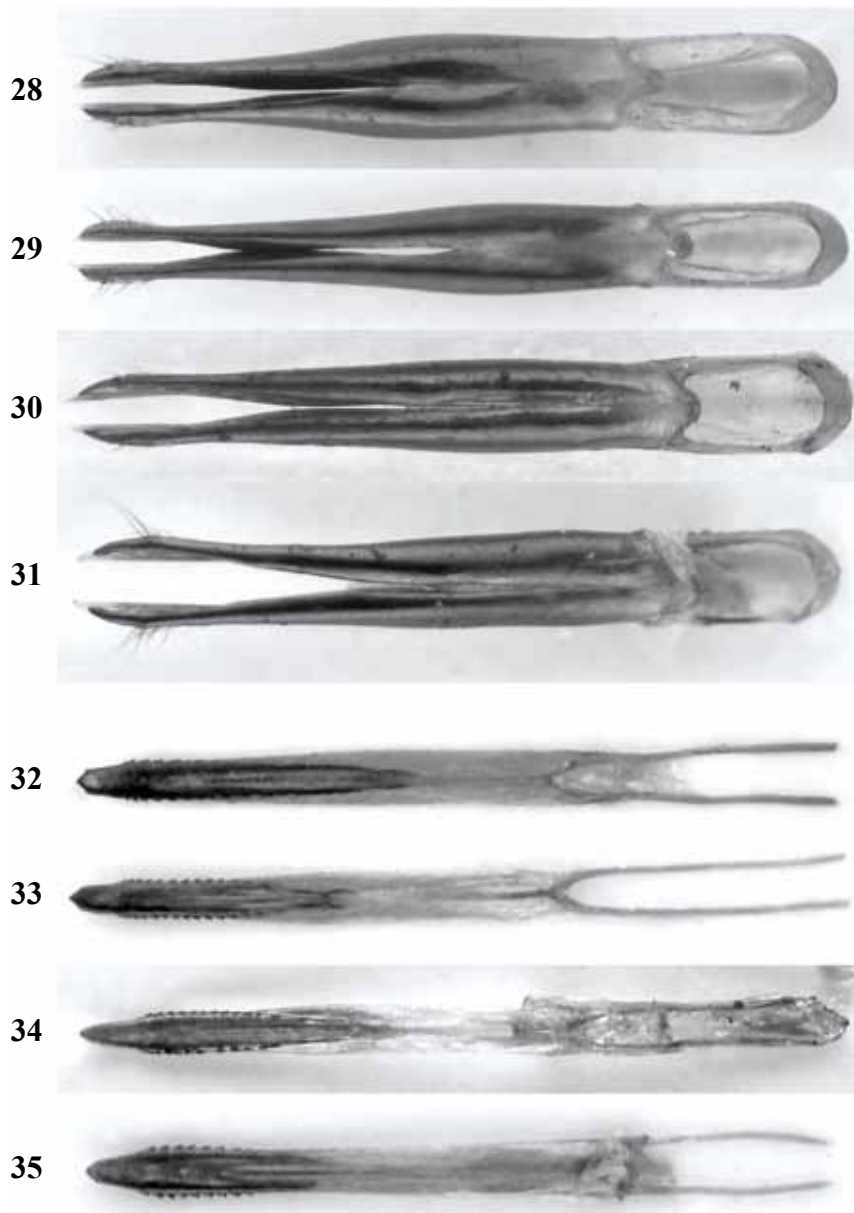
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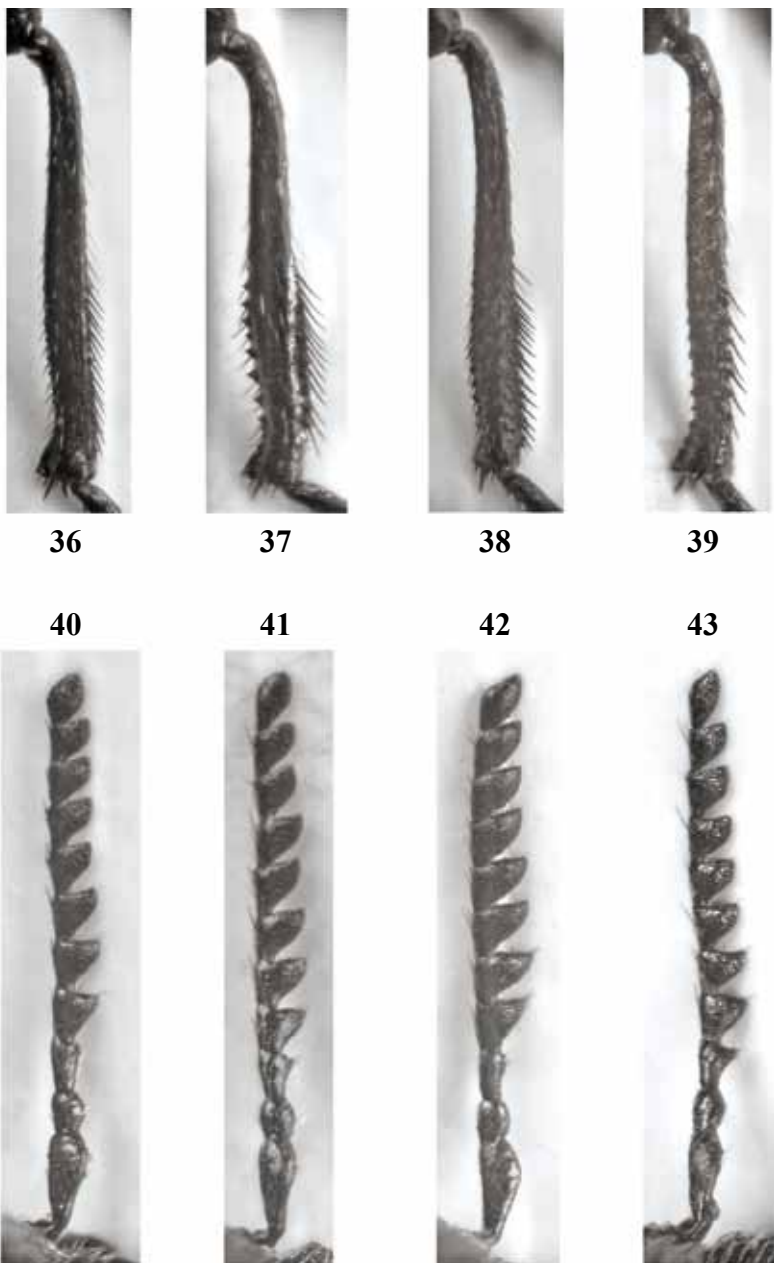
Figs 17-19 – Anal ventrites: *Anthaxia (Haplantaxia) kalalae* n. sp., holotype ♂ (17), allotype ♀ (18). *Anthaxia sagartiana* n. sp., holotype ♂ (20).



Figs 20-27 – Aedeagus, anterior portion of median lobes, lateral view (20-23), dorsal view (24-27): *Anthaxia (Haplanthaxia) kalalae* n. sp., holotype ♂ (20, 24). *Anthaxia (Haplanthaxia) winkleri* ssp. *farsica* Bílý, 1983 (21, 25). *Anthaxia (Haplanthaxia) sagartiana* n. sp., holotype ♂ (22, 26). *Anthaxia (Haplanthaxia) gedrosiana* Bílý, 1983 (23, 27).



Figs 28-35 – Aedeagus: parameres (28-31), median lobes (32-35): *Anthaxia (Haplanthaxia) kalalae* sp. n., holotype ♂, (28), (32). *Anthaxia (Haplanthaxia) winkleri* ssp. *farsica* Bílý, 1983, (29), (33). *Anthaxia (Haplanthaxia) sagartiana* n. sp. ♂, (30), (34). *Anthaxia (Haplanthaxia) gedrosiana* Bílý, 1983, (31), (35).



Figs 36-43 – Metatibiae (36-39), antennae (40-43): *Anthaxia (Haplanthaxia) kalalae* n. sp., holotype ♂, (36), (40). *Anthaxia (Haplanthaxia) winkleri* ssp. *farsica* Bílý, 1983 ♂, (37), (41). *Anthaxia (Haplanthaxia) sagartiana* n. sp. holotype ♂, (38), (42). *Anthaxia (Haplanthaxia) gedrosiana* Bílý, 1983 ♂, (39), (43).

44



45



Fig. 44-45 – *Anthaxia (Haplanthaxia) kalalae* n. sp. allotype ♀, dorsal aspect of ovipositor (44). Locus typicus of *Anthaxia (Haplanthaxia) kalalae* n. sp. (Iran, Fārs prov., 40 km NW Fasā, W Sarvestān, Mian Jangal) (45).

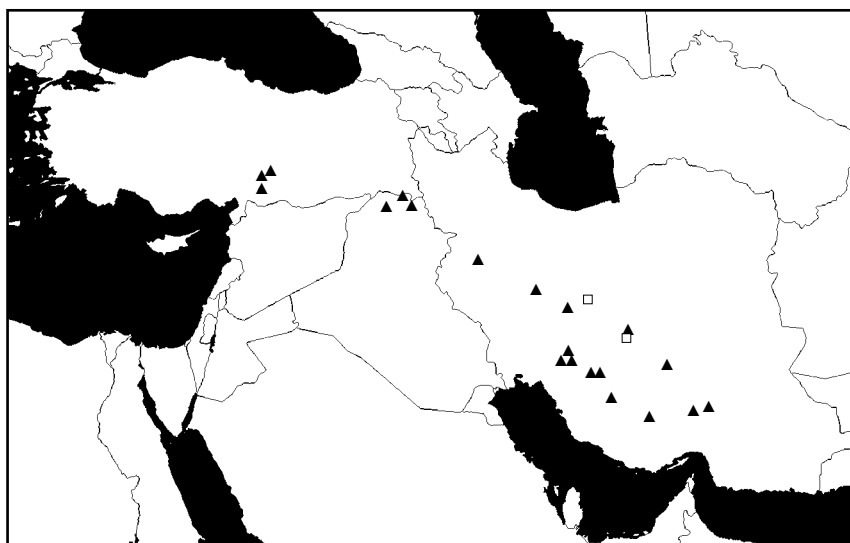


Fig. 46 – Map of distribution: *Anthaxia (Haplanthaxia) kalalae* n. sp. (▲); *Anthaxia (Haplanthaxia) sagartiana* n. sp. (□).

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SUMMARY

Anthaxia (Haplanthaxia) kalalae n. sp. and *Anthaxia (Haplanthaxia) sagartiana* n. sp. from Iran, two new species from the *Anthaxia winkleri* species-group, are herein proposed and illustrated. The new species are compared with the most similar species, and data about their biology and distribution are given, together with a short account upon the taxonomical position of *Anthaxia kalalae*.

RIASSUNTO

Descrizione di due nuove specie del gruppo Anthaxia winkleri (Coleoptera, Buprestidae).

Si descrivono ed illustrano *Anthaxia (Haplanthaxia) kalalae* n. sp. and *Anthaxia (Haplanthaxia) sagartiana* n. sp. dell' Iran, specie appartenenti al gruppo dell'*Anthaxia*

winkleri. Nel presente lavoro esse vengono comparate alle loro congeneri più simili, e vengono forniti alcuni dati sulla loro distribuzione e biologia. Viene inoltre dato un breve resoconto della posizione tassonomica di *Anthaxia kalalae*.

REFERENCES

- BAIOCCHI, D. & G. MAGNANI 2008. Nomenclatorial and synonymic note on the genus *Anthaxia* (Coleoptera, Buprestidae). *Fragmenta entomologica* 40 (1): 99-104.
- BELLAMY, C. L. 2008. A World Catalogue and Bibliography of the Jewel Beetles (Coleoptera: Buprestoidea). Volume 3: Buprestinae: Pterobothrini through Agrilinae: Rhaeboscelina. Pensoft Series Faunistica No. 78, pp. 1261-1931, Pensoft Publishers, Sofia-Moscow.
- BÍLÝ, S. 1977. Taxonomic notes on *Anthaxia* (Coleoptera, Buprestidae) from South-Western Asia, with descriptions of two new species. *Acta Entomologica Bohemoslovaca* 74 (4): 275-282.
- BÍLÝ, S. 1983. Results of the Czechoslovak-Iranian entomological expeditions to Iran. *Coleoptera Buprestidae*. *Acta Entomologica Musei Nationalis Pragae* 41: 29-92.
- BÍLÝ, S. 1997. World Catalogue of the Genus *Anthaxia* Eschscholtz, 1829 (Coleoptera: Buprestidae). *Folia Heyrovskyana, Supplementum* 2, 190 pp.
- BÍLÝ, S. 1999. Supplement to the "World Catalogue of the Genus *Anthaxia* (Coleoptera: Buprestidae)". *Folia Heyrovskyana* 7 (5): 229-242.
- BÍLÝ, S. 2006. Buprestidae-Anthaxiini: 58-60, 369-381 pp. In: I. Löbl & A. Smetana (eds.). *Catalogue of Palaearctic Coleoptera, Vol. 3*. Stenstrup, Apollo Books, 690 pp.
- BÍLÝ, S. & D. BAIOCCHI 2009. *Anthaxia (Haplanthaxia) pinda* sp. nov. from the Arabian Peninsula (Coleoptera: Buprestidae). *Zootaxa* 2280: 63-68.
- BORUMAND, H. 2002. Coleoptera (XXIV). Buprestoidea Fam. (62). Buprestidae. In: *Insects of Iran. The list of Coleoptera in the insect collection of Plant Pests & Diseases Research Institute. Ministry of Agricultural Jihad, Agricultural Research, Education & Extension Organization, Plant Pests & Diseases Research Institute, Insect Taxonomy Research Department, Publ. No. 8*, pp. 1-63.
- DAVATCHI, A. 1958. Étude biologique de la faune entomologique des *Pistacia* sauvages et cultivés. *Revue de Pathologie végétale et d'Entomologie agricole de France*, 37 (1): 3-166.
- DAVATCHI, A., F. TAGHI-ZADEH & M. SAFAVI. 1959. Contribution à l'étude biologique et économique des coléoptères phytophages et xilophages de l'Iran (première note). *Revue de Pathologie végétale et d'Entomologie agricole de France*, 38 (4).
- MAGNANI, G. & D. BAIOCCHI (in press). *Anthaxia (Haplanthaxia) nabataea* n. sp. from Jordan (Coleoptera, Buprestidae). *Biocosme Mesogene*.
- MIRZAYANS, H., A. HASHEMI, H. BORUMAND, M. ZAIRI & G.H. RAJABI. 1976. Insect Fauna of Province of Fārs (Iran). (Part 5. List of Buprestidae (Coleoptera) from Province of Fārs (1) by G. Radjabi, pp. 128-129) *Journal of Entomological Society of Iran*, 3 (1-2): 109-129.
- OBERBERGER, J. 1914. Neue palaearktische *Anthaxia*-arten (Col. Buprestidae). *Entomologische Blätter*, 10: 254-257.
- OBERBERGER, J. 1929. Buprestidarum supplementa palaeartica III. *Acta Societatis Entomologicae Cechosloveniae*, 25 (1928): 121-127.
- OBERBERGER, J. 1938. Studie o družich rodu *Anthaxia* Eschsch. (Col. Bupr.). Etudes sur les espèces du genre *Anthaxia* Eschsch. (Col. Bupr.). *Acta Entomologica Musei Nationalis Pragae* 1 B, Number II (Zool., Number, 4): 171-249.
- RADJABI, G. 1968. Contribution à la connaissance de la faune de Buprestides de l'Iran. *Entomologie et Phytopathologie Appliquées*, 27: 69-79. [in French with Iranian summary].