

NEW DATA ON THE OCCURRENCE OF *ANACRIDIDIUM AEGYPTIUM* (ORTHOPTERA: ACRIDIDAE) IN SERBIA

SLOBODAN IVKOVIĆ¹, ACA ĐURĐEVIĆ² and MILOŠ POPOVIĆ^{2*}

1 Lovačka 14, 21410 Futog, Serbia

E-mail: marko.idvor@gmail.com

2 HabiProt, Bulevar Oslobođenja 106/34, 11040 Belgrade, Serbia

*E-mail: milos@habiprot.org.rs

The majority of papers regarding Serbian Orthoptera were published at the end of 19th and in 20th century by just a few authors: Pančić (1883), Adamović (1975), Grebenščikov (1947, 1949, 1950), Karaman (1958, 1958a, 1960, 1961, 1961a), Matvejev (1976, 1978, 1983), Ramme (1931, 1931a, 1933, 1939, 1951), Brunner von Wattenwyl (1861, 1861a, 1878, 1882), Frivaldszky (1876) and Ebner (1908, 1924) (summary in Ingrish & Willemse, 2004). However, the fauna of this group remains poorly studied, with a total of 164 species recorded for Serbia (Pavićević & Karaman, 2001), leaving many regions in the country largely understudied. In the last few years, special attention has been given to the southern parts of Serbia, which have proved to host unique and diverse insect fauna, with many species usually found only in the sub-Mediterranean and Mediterranean area (Đurđević & Đurić, 2011; Popović, Radevski, Miljević, & Đurić, 2014; Popović & Milenković, 2012). Here we describe the discovery of *Anacrididium aegyptium* (Linnaeus, 1764) in the Pčinja valley, thus confirming its presence in Serbia.

The genus *Anacrididium* Uvarov, 1923 comprises 13 species, with *A. aegyptium* as its sole representative in Europe (Eades, Otte, Cigliano, & Braun, 2014; Heller et al., 1998). It is one of the largest European grasshoppers and is considered common in the Mediterranean area, usually found near bushes and vineyards. Adult specimens are known to overwinter, the species commonly being found in warm and dry habitats. The adult's body color is brown-gray, while the nymph is usually green, yellowish or brown. *A. aegyptium* can be recognized by its characteristic eyes with vertical black and white stripes and tibiae that are greyish, the underside of the hind femora reddish.

A. aegyptium is widely distributed in South America, Africa, Europe and Asia (Eades et al., 2014) and has been recorded in neighboring Bulgaria (Popov, 2007), Republic of Macedonia (Chobanov & Mihajlova, 2010), Albania (Čejchan, 1963; Ebner, 1910), Montenegro (Nikčević, 2007), Bosnia and Hercegovina (Us, 1992),

Croatia (Rebrina, Skejo, & Tvrtković, 2015) and Slovenia (Us, 1992). The single known record of this species in Serbia was published by Us & Matvejev (1967) for the region of Vojvodina (northern Serbia). However, in the book "Favna ortopteroidnih insektov Slovenije", Us (1992) did not mention this species for Serbia when making a short overview of its distribution in Yugoslavia. Subsequently, Adamović (1975) mentioned that the species could be found in Serbia, but did not include it in fauna of Orthoptera of Serbia due to the absence of reliable data.



Figure 1. Photograph of *Anacridium aegyptium* (Linnaeus, 1764) found on a tarred road between the Macedonian border and Prohor Pčinjski Monastery on May 22, 2014.

The first confirmed record of *A. aegyptium* came as a result of studies of the insect fauna in the Pčinja valley in southern Serbia on May 22, 2014. On this occasion, a single female specimen was observed (Fig. 1) on a tarred road between Prohor Pčinjski Monastery and the state border with Macedonia (42.323358° N, 21.893435° E, 440 m). As the specimen was found on a road, we are not sure of the exact location and quality of its habitats, but presume that suitable areas can be found on the grasslands and rocky pastures above the original observation site. Further studies of *A. aegyptium* ecology and distribution in Serbia and more detailed surveys of Orthoptera fauna in the very south of the country would certainly yield interesting results in the future.

Acknowledgements. We would like to thank the Orthodox Eparchy of Vranje and Igor Aleksić, managers of the protected area, for their logistic support. The survey was financed by the Rufford Small Grants foundation, project No. 14884-2.

References: Adamović, Ž. (1975). *Zbornik Radova o Entomofauni SR Srbije*, 1, 9–84. Brunner von Wattenwyl, C. (1861). *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien*, 11, 221–228. Brunner von Wattenwyl, C. (1861a). *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien*, 11, 285–310. Brunner von Wattenwyl, C. (1878). *Monographie der Phaneropteriden*. Wien, Austria: Brockhaus, 401 pp. Brunner von Wattenwyl, C. (1882). *Prodromus der europäischen Orthopteren*. Leipzig, Germany: Wilhelm Engelmann, 466 pp. Chobanov, D. & Mihajlova, B. (2010). *Articulata*, 25(1), 73–107. Čejchan, A. (1963). *Beiträge zur Entomologie*, 13, 761-796. Đurđević, A. & Đurić, M. (2011).

Biologica Nyssana, 2(2), 49–50. Ebner, R. (1910). *Zoologische Jahrbücher. Abteilung für Systematik, Geographie und Biologie der Tiere*, 29, 401–414. Ebner, R. (1908). *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien*, 58, 329–339. Ebner, R. (1924). *Konowia*, 2 (5–6), 249–256. Eades, D., Otte, D., Cigliano, M. M., & Braun, H. (2014). Orthoptera Species File, Version 5.0 [Web site]. Retrieved June 15, 2014, from <http://orthoptera.speciesfile.org> Frivaldszky J. (1876). *M.T. Akadémia Matematikai és Természettudományi Közlemények*, 13, 285–378. Grebenščikov, O. (1947). *Proceedings of the Royal Entomological Society of London* 22(10–12), 101. Grebenščikov, O. (1949). *Glasnik Prirodnjačkog muzeja*, B, 1–2, 243–273. Grebenščikov, O. (1950). *Zbornik radova Instituta ekologije i biogeografije*, 1, 181–195. Heller, K. G., Korsunovskaya, O., Ragge, D. R., Vedenina, V., Willemse, F., Zhantiev, R. D. & Frantsevich, L. (1998). *Articulata*, 7, 1–61. Ingrisich, S. & Willemse F. M. H. (2004). *Bibliographia Systematica Orthopterorum Saltatoriorum: Systematic bibliography of saltatorial Orthoptera from Linnaean times to the end of the 20th century (about 1750 to 2000)*. Sofia-Moscow, Bulgaria-Russia: Pensoft, 536 pp. Karaman, M. S. (1958). *Zaštita bilja*, 45, 111–118. Karaman, M. S. (1958a). *Biološki Glasnik*, 11, 35–44. Karaman, M. S. (1960). *Zaštita bilja*, 57–58, 143–161. Karaman, M. S. (1961). *Fragm. Balcanica*, 4(5), 37–48. Karaman, M. S. (1961a). *Mitteilungen der Münchner Entomologischen Gesellschaft*, 51, 111–117. Matvejev, S. D. (1976). *Acta biologica Yugoslavica, Biosystematica*, 2, 91–99. Matvejev, S. D. (1978). *Recueil travaux sur la faune d'insectes de la Serbie*, 2, 1–28. Matvejev, S. D. (1978). *Acta entomologica Yugoslavica*, 19, 5–8. Nikčević, J. (2007). *Natura Montenegrina*, 7(3), 399–407. Pančić, J. (1883). *Glasnik Srpskog učenog društva*, 15(2), 1–172. Pavičević, D. & Karaman, I. (2001). *Zaštita prirode*, 52(2), 23–33. Popov, A. (2007). In V. Fet & A. Popov (Eds.), *Biogeography and Ecology of Bulgaria* (pp. 233–296). Dordrecht: Springer. Popović, M. & Milenković, M. (2012). *Phegea*, 40(1b), 37–38. Popović, M., Radevski, Đ., Miljević, M. & Đurić, M. (2014). *Acta entomologica serbica*, 19(1/2), 45–51. Ramme W. (1931). *Zoologischer Anzeiger*, 93, 123–126. Ramme W. (1931a). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 17, 165–200. Ramme W. (1933). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 19, 497–575. Ramme W. (1939). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 24, 41–149. Ramme W. (1951). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 27, 1–432. Rebrina, F., Skejo J. & Tvrtković N. (2015). *Annales de la Société entomologique de France (N.S.): International Journal of Entomology*. DOI: 10.1080/00379271.2015.1059675 Us, P. (1992b). *Favna ortopteroidnih insektov Slovenije*. Ljubljana, Slovenia: Slovenska akademija znanosti in umetnosti. Razred za prirodoslovne vede, Ljubljana, 32(12), 314 pp. Us, P. & Matvejev, S. (1967). *Catalogus faunae Jugoslaviae III/6: Orthopteroidea*. Ljubljana, Slovenia: Slovenska akademija znanosti in umetnosti, 47 pp.

НОВИ ПОДАЦИ О ПРИСУСТВУ *ANACRIDIDIUM AEGYPTIUM* (ORTHOPTERA: ACRIDIDAE) У СРБИЈИ

СЛОБОДАН ИВКОВИЋ, АЦА ЂУРЂЕВИЋ И МИЛОШ ПОПОВИЋ

Извод

Иако је фауна Orthoptera Србије детаљно проучавана током 19. и 20. века, укупан број врста и њихова дистрибуција још увек није довољно позната. Посебно је занимљиво подручје јужне Србије због могућег присуства таксона медитеранског и субмедитеранског распрострањења. Овде је приказан налаз врсте *Anacrididium aegyptium* (Linnaeus, 1764) на асфалтном путу за Македонију. Иако се она помиње за територију Србије, сви досадашњи налази су остали непотврђени. Како је јединка посматрана изван станишта, потребно је детаљније проучити њену дистрибуцију и екологију и посветити већу пажњу фауни правокрилаца јужне Србије.

Received February 24th, 2015
Accepted September 3rd, 2015