NATURAE TUTELA	20/2	127 – 130	LIPTOVSKÝ MIKULÁŠ 2016

REMARKABLE RECORD OF THE RARE SPIDER *POECILOCHROA VARIANA* (ARANEAE: GNAPHOSIDAE) IN MOUNTAIN AREA, NOTES TO ITS DISTRIBUTION IN SLOVAKIA AND EUROPE

VALERIÁN FRANC

V. Franc: Pozoruhodný nález vzácneho pavúka *Poecilochroa variana* (Araneae: Gnaphosidae) v horskej oblasti, poznámky k jeho rozšíreniu na Slovensku a v Európe

Abstrakt: Autor v práci popisuje okolnosti pozoruhodného nálezu vzácneho, značne teplomilného pavúka *Poecilochroa variana* v Balockých vrchoch. Napriek nápadnému výzoru je o tomto druhu nedostatok informácií, a to neplatí len o Slovensku. Príčinou je nielen vzácnosť tohto pavúka, ale aj jeho spôsob života medzi detritom, skalami a machom, kde pri rýchlom a akoby nervóznom pohybe uniká pozornosti a často aj epruvete zberateľa. Práca obsahuje rekapituláciu dostupných nálezov *Poecilochroa variana* na Slovensku, ako i hodnotenie jeho rozšírenia (vrátane prognóz) a ekosozologického statusu v európskych krajinách.

Kľúčové slová: *Poecilochroa variana*, Balocké vrchy, Slovensko

INTRODUCTION

The gnaphosid-spider *Poecilochroa variana* (C. L. Koch, 1839) is one of the little known nevertheless attractive and interesting species of spiders. Information of its occurrence, as well as the ecology in Slovakia but also elsewhere is relatively insufficient. Sporadical records are especially known from xerothermic sites of Southern Slovakia. The latter finding of this species in quite atypical environments (Balocké hills) forced me to write this paper on its distribution and ecology in Slovakia. The problems of its ecosozological status in Slovakia and European countries are discussed later as well.

Fig. 1. *Poecilochroa variana* (Photo Dragiša Savić)

RESULTS AND DISCUSSION

Accessible recent records from Slovakia in chronologic order (if the source of information allows it) are listed below. If resources permit data, it is supplemented by the elevation and GPS coordinates of the site.

The first finding was carried out in the Nature Reserve (later only „NR“) Devínska Kobyla (DFS code 7867b), June 6, 1978, ♂ (P. Gajdoš leg.), published as a new species for Slovakian araneofauna (Gajdoš, Svatoň, Krumpál, 1984). The further records:

Slovak Karst Reserve (nowadays National Park) – Brzohôrka (7388d) and Gombasek (7488b), undated (Svatoň, Majkus, 1988).

NR Soví hrad (48° 13‘ 33.36“ N, 19° 54‘ 45.98“ E; 7785d), 255 m (a. s. l.), xerothermic sandy and rocky slope, April 22, 1995, juvenile ♂ (Franc, Hanzelová, 1996).

Gemerské Dechtáre village (48° 14‘ 50.63“ N, 20° 0‘ 18.96“ E; 7786a/c), 254 m, xerothermic sandy pasture, April 29, 1995, juvenile ♂ (Franc, Hanzelová, 1996).

Lackovce village – Veliká (7097d), summer – autumn 2001 (pitfall trapping), 2 ♂ + ♀; Dlhé nad Cirochou – a foot of the Biely Mt (7098a), autumn 1998 – summer 2000 (long-term pitfall trapping) 3 juvenile ♀ (Thomka, 2003).

Banská Bystrica – Protected Site Jakub (48° 45‘ 58.66“ N, 19° 8‘ 31.52“ E; 7280b/d), 415 m, xerothermic karst rocky slope, June 21, 2005, ♂ (V. Franc & Ľ. Černecká leg.).

Hrochoť – Turkov vrch (48° 39‘ 4.16“ N, 19° 19‘ 25.31“ E; 7381b/d), 644 m, xerothermic pasture on andesite substrate, October 25, 2005, juvenile ♀ (V. Franc leg., J. Svatoň redet.). Notable autumn record in higher altitudes.

Praha village (48° 22’ 35.32” N, 19° 30’ 14.30” E; 7683a), 535 m, semi-xerothermic shrubby slope – abandoned pasture, March 30, 2007, subadult ♀ (V. Franc & E. Marčoková leg.).

Balocké vrchy Mts – Vydrovská valley (48° 43‘ 59.59“ N, 19° 38‘ 32.84“ E; 7283d), 580 m, timber dump at the edge of spruce forest, June 2, 2008, 1 ♂ briskly running along the surface of loamy soil (V. Franc leg.). This record is especially remarkable because it confirms the occurrence of this species quite high in the mountain complex of almost continuous coniferous forests. By the way, it is notable that several meters nearby flew to spruce trunk a rare Eurosiberian jewel beetle *Chrysobothris chrysostigma* (Linnaeus, 1758) living in ‘taiga’ forests (Coleoptera: Buprestidae)!

This species of variegated appearance and rapid movement in warm weather evokes the spider of subtropical regions. *Poecilochroa variana* had been formerly considered to be a very rare species. During the last two decades, however, its abundance according to the available indications is slowly increasing.

Although it apparently ranks among thermophilic, or at least heliophilic species, it is also known from Scandinavia (see tab. 1); and in Slovakia it was recently found in middle mountain areas. It appears that drier and warmer summers of recent years with longer periods with little rainfall have a positive impact on this species.

The habitats of this spider include natural or less disturbed habitats of open landscape: rocky or sandy hillsides, pastures, edges of open deciduous forests, rocky steppes, heathlands and ecotone sites. It avoids intensively managed agricultural habitats, but also refuses shady forest complex. Therefore, referred finding in the Vydrovská valley in the area of nearly continuous coniferous (less mixed) forests is very remarkable.

Table 1 includes evaluation of the distribution of this species in Europe (van Helsdingen, 2013). It is notable that in several countries the data on its presence are missing, or it has not yet been confirmed. This also concerns the Czech Republic (Buchar, Růžička, 2002), but due to the presence in neighbouring countries its discovery can be expected, a similar situation exists in some other countries. I suppose that the data deficit on this species in several European countries is rather the consequence of its inconspicuous behaviour in the field, and the lack of thorough exploration of the spider fauna in these countries. It should be noted that a variegated and conspicuous appearance of this spider jumps out only on a monochrome background, and if the spider is at rest; under normal circumstances, this manifests as a decompository colouration. According to my experience, this spider in a quick, zig-zag and "nervously" movement between stones, fragments of debris and fissures (which tends rapidly to hide) quickly loses, so to catch him is not at all easy.

Table 1. Distribution of *Poecilochroa variana* in European countries

Country (Region)	*Pv*/p	Country (Region)	*Pv*/p	Country (Region)	*Pv*/p	Country (Region)	*Pv*/p
Albania	ND$^+$	Great Britain	ND	Luxemburg	ND$^+$	Russia south	P
Austria	ND$^+$	Greece	ND$^+$	Macedonia	P	Russia west	P
Belarus	ND$^+$	Hungary	P	Moldovia	ND$^+$	Sardinia	ND$^+$
Belgium	P	Ireland	ND	Netherlands	ND	Sicily	P
Bosnia-Herzegovina	ND$^+$	Italy	P	Norway	P	Slovakia	P
Bulgaria	P	Kaliningrad region	ND	Poland	P	Slovenia	ND$^+$
Corsica	ND$^+$	Latvia	P	Portugal	P	Spain	P
Croatia	ND$^+$	Lithuania	ND$^+$	Romania	P	Sweden	P
Czech Republic	ND$^+$	Finland	P	Russia central	P	Switzerland	P
Danmark	ND	France	P	Russia north	P	Turkey (European)	ND^t
Estonia	P	Germany	P	Russia north-west	P	Ukraine	P

Pv/p – presence/absence of *Poecilochroa variana*, ND – no data, ND$^+$ – occurrence has not been documented, but may be expected, P – present; ND^t Reliable data from Turkey are still missing on the website «faunaeur.org», although more than 10 years ago it was published as a new species for the fauna of Turkey (Bayram, Varol, 2003).

Ecosozological status of *Poecilochroa variana* may be debatable problem. In the Red List of Slovakia it ranks among the category EN – endangered (Gajdoš, Svatoň, 2001). I suppose that it is over-estimated and actually it should be VU – vulnerable. In the Red List of Germany (Platen et al., 1998) it is listed among CR – critically endangered species; perhaps it may be slightly over-estimated as well. Moreover, it is not mentioned in any other Red List in Europe. It is missing in the Red List of Poland (Starêga, 2002) and even in the Red List of Norway (Åkra et al., 2010), Sweden (Sandström et al., 2010) and Finland (Pajunen et al., 2010). This is surprising because in these countries, on the northern border of its range of distribution, this species occurs probably very sporadically and rarely, and then it may be distinctly threatened.

CONCLUSION

Poecilochroa variana is one of the attractive and interesting spider species which deserved more attention of arachnologists and environmentalists. Information on its distribution and ecology is not satisfactory in Slovakia and elsewhere. Its occurrence may be expectable in several European countries (tab. 1). It is an attractive and rare species which, in addition, indicates the high-biodiversity sites. I suppose that therefore it could be included to the list of animals protected by the law.

REFERENCES

Åkra, K., Olsen, K. M., Pommeresche, R., Ødegaard, F. 2010. Edderkoppdyr – Arachnida, p. 355–365. In Kalas, J. A., Viken A., Henriksen, S., Skjelseth, S. (Eds.), The 2010 Norwegian Red List for Species, Artsdatabanken, Trondheim, 480 pp.

Bayram, A., Varol, M. İ. 2003. On *Poecilochroa variana*, recently collected in Turkey for the first time (Araneae: Gnaphosidae). Zoology in the Middle East (Kasparek Verlag, Heidelberg) 30: 101–104

Buchar, J., Růžička, J. 2002. Catalogue of Spiders of the Czech Republic. Peres Publ., Praha, 351 pp.

Franc, V., Hanzelová, A. 1996. New and remarkable findings of spiders (Araneida) in Slovakia and their ecosozological value. Acta Univ. Carolinae (Praha) 40: 365–382.

Gajdoš, P., Svatoň, J. 2001. Červený (ekosozologický) zoznam pavúkov (Araneae) Slovenska. In Baláž, D., Marhold, K., Urban, P. (Eds.), Červený zoznam rastlín a živočíchov Slovenska. Ochrana prírody, ŠOP SR Banská Bystrica, Suppl. 20: 80–86.

Gajdoš, P., Svatoň, J., Krumpál, M. 1984. New and unusual records of spiders from Slovakia, 1. (Araneae: Atypidae, Dictynidae, Gnaphosidae, Clubionidae, Zoridae, Salticidae, Lycosidae). Biológia (Bratislava) 39: 223–226.

Pajunen, T., Fritzén, N., Koponen, S., Lehtinen, P. T. 2010. Hämähäkit – Spiders (Araneae), p. 357–369. In Rassi, P., Hyvärinen, E., Juslén, A., Mannerkoski, I. (Eds.), The 2010 Red List of Finnish Species. Ympäristöministeriö & Suomen ympäristökeskus, Helsinki, 685 pp.

Platen, R., Blick, T., Sacher, P., Malten, A. 1998. Rote Liste der Webspinnen (Arachnida: Araneae), p. 268–275. In Binot, M., Bless, R., Boye, P., Gruttke, H., Pretscher, P. (Eds.), Rote Liste gefährdeter Tiere Deutschlands. Bundesamt für Naturschutz, Bonn, xvi + 434 pp.

Sandström, J., Jonsson, L., Kronestedt, T., Gärdenfors, U. 2010. Spindeldjur – Spiders, Harvestmen & Pseudoscorpions (Arachnida), p. 479–485. In Gärdenfors, U. (Ed.), The 2010 Red List of Swedish Species. ArtDatabanken, SLU, Uppsala, 584 pp.

Starêga, W. 2002. Arachnida – Pajêczaki, p. 133–140. In Głowaciński, Z. (Ed.), Czerwona lista zwierząt ginących i zagrożonych w Polsce. Polish academy of sciences, Institute of nature conservation, Kraków, 155 pp.

Svatoň, J., Majkus, Z. 1988. Príspevok k poznaniu pavúkov (Araneae) Plešivskej planiny. Výskumné práce z ochrany prírody (Bratislava) 6B: 203–242.

Thomka, V. 2003. Fauna pavúkov (Araneae) údolia Cirochy. Natura carpatica (Košice) 44: 139–154.

van Helsdingen, P. 2013. Gnaphosidae. Fauna Europaea, version 2.6.2. «http://www.faunaeur.org»

Adresa autora:
doc. PaedDr. Valerián Franc, CSc., Katedra biológie a ekológie Fakulty prírodných vied, UMB, Tajovského 40, 97401 Banská Bystrica; e-mail: valerian.franc@umb.sk