

## CONTRIBUTION TO THE CHOROLOGY OF *THAMNURGUS VARIPES* EICHHOFF (COLEOPTERA: SCOLYTIDAE) IN EAST SERBIA

M. STEVANOVIĆ

YU-18000 Niš, Pobede 21/4

This paper presents the results of the investigation of *Thamnurgus varipes* Eichhoff and its distribution in East Serbia. This species has been recorded for the first time in Serbia.

KEY WORDS: spruce, bark beetle, distribution, Serbia.

### INTRODUCTION

The family Scolytidae comprises small beetles which develop in different parts of trees, shrubs and herbaceous plants.

The species in the genus *Thamnurgus* Eichhoff live mostly on various herbaceous plants, and also on spruces. This paper presents the data on the finding of the bark beetle species in East Serbia. In the literature of the former Yugoslavia there are very few data on this species.

### MATERIAL AND METHODS

The material was collected at 22 localities in East Serbia, between the rivers Velika Morava and Južna Morava, Nišava and Timok. This study covers the majority of plant associations which include wood spruce, host plant of *Thamnurgus varipes* Eichhoff.

During the collection of bark beetles, we used an exhaustor by which we collected the adults individually and separately from each plant, after which they were prepared in the usual way. The infested plants were herbarized to determine the type and the scope of damage.

## RESULTS AND DISCUSSION

The genus *Thamnurgus* Eichh. is represented by 12 species in European fauna. Four species were found in the regions of the former Yugoslavia, but there are very few data:

*Th. euphorbiae* Kuster (1845) was found on wood spurge *Euphorbia dendroides* L. near Dubrovnik by the German entomologist and malacologist CARL KUSTER during his tour of Dalmatia in 1841. He described it in the second volume of his book „Die Kafer Europas” in 1845. It was then mentioned by SCHLOSSER-KLEKOVSKI in the second volume of „Fauna kornjašah Trojedne Kraljevine” (1878:514). He specified the finding in Dalmatia, after KUSTER, but he stated wrongly that it was found „under poplar bark”. This was also referred to by LANGHOFFER (1915:170). The finding in Dalmatia was also cited by REITTER (1894:66) and PAGANETTI-HUMMLER (1901:150). It was NOVAK (1952:416) in the book „Kornjaši Jadranskog primorja” who gave detailed information on the localities along the Adriatic Coast and on the host plant *Euphorbia veneta* Willd. (syn. *E. wulfenii* Hoppe). It was mentioned on the same plant on Mt. Biokovo by SPAJIĆ (1983:168). We found a few specimens at Đenovići in Montenegro, also on *E. veneta* Willd. (leg. et det. M. Stevanović, 10<sup>th</sup> Aug 1990).

The species *Th. kaltenbachi* Bach (1849) was found by SCHLOSSER-KLEKOVSKI (1878:514) in Croatia on the plant *Teucrium scorodonia* L., which was also referred to by LANGHOFFER (1915:17). There are no data on this species in our literature.

In the former Yugoslavia, *Th. delphinii* Rosenhauer (1856) was referred to by STARK (1952:312), while KARAMAN (1971:105) supposed that it would be found also in Macedonia. There are no data for Serbia.

According to KNOTEK (1892:37), *Th. varipes* Eichhoff (1878) was found by APFELBECK on wood spurge near Reljevo in Bosnia. The finding in Bosnia was also mentioned by REITTER (1913:85, 1916:296) on *Euphorbia amygdaloides* L. where it was found by MIHRAN.

According to STARK (1952:310), this species ranges in Caucasus, France, Germany, Austria, Czechoslovakia, Poland, Romania, North Greece, West Turkey, and it is also said that it occurs in Yugoslavia, but no localities are mentioned. PFEFFER (1955:159) claims its presence in Bulgaria. ZORA KARAMAN (1971:105) supposes that it also lives in Macedonia.

From the above it can be concluded that this species lives throughout the range of its host plant *E. amygdaloides* L., consequently STARK could suppose that this bark beetle is distributed in all parts of Yugoslavia along with the above spurge.

The data on the finding of this species in East Serbia confirm the above hypothesis.

*Th. varipes* Eichh. was found at several localities in East Serbia, usually a smaller number of specimens. The total number of collected specimens is 62. They were found between May and August in different stages of development, starting from larvae of different instars to adult forms. All specimens were found in the stems of wood spurge *Euphorbia amygdaloides* L., usually along forest edges, in forest openings and in conifer plantations covered with grass, which are not rare in this region.

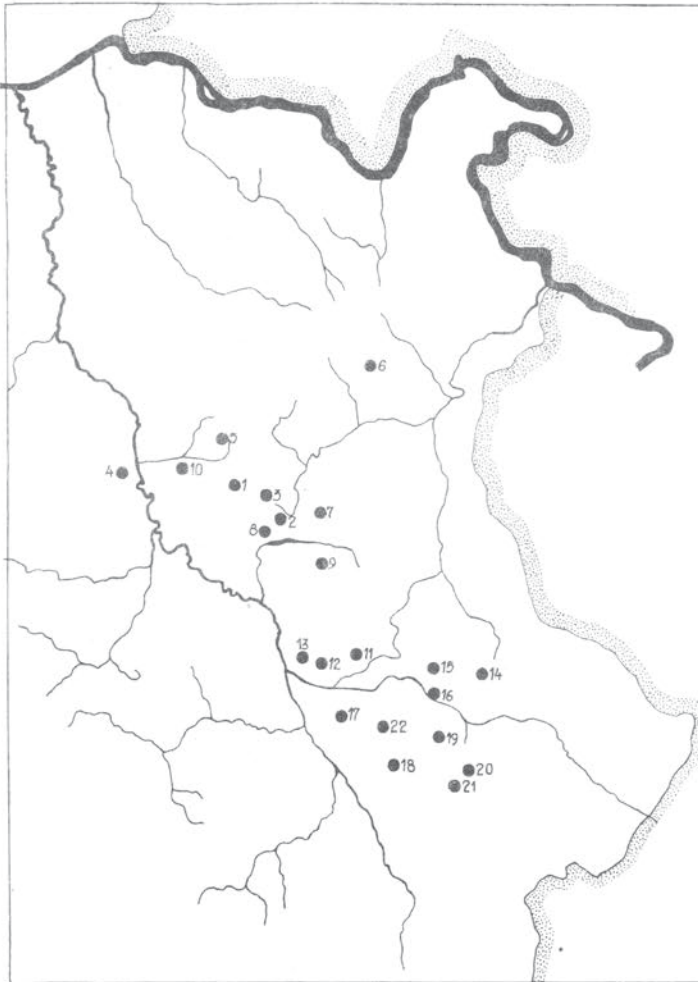
The species was recorded for the first time in May 1986 at the locality Hajdučki Kamen (1), then near the village Lukovo (2) in June 1986 and at the village Krivi Vir in the same period, and then again near Hajdučki Kamen in 1987. All these localities are in the region of Kučajske Planine.

This was followed by detailed investigations along the stretch between the rivers Velika Morava and Južna Morava, Nišava and Timok. The bark beetle was found at the following localities:

- Juhor - Minina Kosa (4), 680 m, June-July 1986
- Kučaj - Grza (5), 590 m, June 1986, June 1987
- Brestovačka Banja (6), 670 m, June 1986
- Rtanj - near the road Paraćin-Boljevac (7), 700 m, July 1987
- Bukovik - Jerčine Pojate (8), 650 m, June and July 1988
- Obla Glava - above the village Poružnica (9), 380 m, July 1988
- Paraćin - Čukar hill (10), 310 m, June and July 1986, 1987, 1988, 1990
- Kalafat - Ljiljak (11), 720 m, May 1988; Šljiva (12), 650 m, June 1988; village Kamenica (13), 430 m, July 1990.
- Svrljiške Planine - village Crnoljevica (14), 700 m, July 1989 and June 1990;
- Ječmište (15), 720 m, June 1990; Sićevačka Klisura (16), 320 m, June 1989;
- Seličevica - Zli Do (17), 520 m, June 1990
- Babička Gora - Košutina Ornica (18), 630 m, August 1990
- Suva Planina - village Divljana (19), 470 m, June 1987; village Bežište (20), 500 m, June 1987; Orlovo Gnezdo (21), 750 m, July 1990; Bojanine Vode (22), 760 m, August 1990.

From the above survey, it can be seen that this bark beetle was found at 22 localities between the mountains Juhor, Kučaj, Rtanj, Obla Glava, Bukovik, Kalafat, Svrljiške Planine, Suva Planina, Seličevica, and Babička Gora.

*Th. varipes* host plant is wood spurge *Euphorbia amygdaloides* L. On the stems of the attacked plants, we can see the tunnel openings made by this bark beetle, most often in the leaf axils of the terminal rosette, and often along the whole length of the stem, 2-5 mm wide. Gallery openings, as well as the gallery system, are charac-



Map 1 Distribution of the species *Thamnurgus varipes* Eichhoff in East Serbia

teristically bluish-gray. This color originates from the dried milk exudate, which the attacked plant exudes at the place of injury. It was observed that larval galleries are rather long, and it is not rare that all larvae in an egg cluster are found in the same gallery, which is filled with remnants of the chewed heartwood.

## CONCLUSION

Although STARK includes the former Yugoslavia in the range of distribution of the species *Thamnurgus varipes* Eichhoff, this paper presents the first data on the findings of this species in Serbia, by which the above hypothesis has been confirmed.

During our five-year study, *Th. varipes* Eichh. was found at 22 localities in East Serbia in the period between May and August. It was found on wood spurge *Euphorbia amygdaloides* L., in the stems of characteristic appearance. The species was found in all stages of its life cycle, in a relatively small number of specimens.

As wood spurge grows throughout Serbia, the new findings of this bark beetle can positively be expected.

## REFERENCES

- KARAMAN, Z. (1971): *Fauna na Makedonija - Scolytoidea*. Prirodno-naučen muzej, I: 1-178.
- KNOTEK, J. (1892): Scolytidae koje su do sada poznate iz Bosne i Hercegovine. *Glasnik zemaljskog muzeja B i H*, knjiga I: 32-39.
- KÜSTER, C.H. (1845): *Die Käfer Europas*. Beiträgen mehrere Entomol., Nürnberg.
- LANGHOFFER, A. (1915): Potkornjaci Hrvatske (Scolytidae Croatiae). *Šumarski list* 39, broj 3-4: 1-23.
- NONVEILLER, G. (1989): *Pioniri proučavanja insekata Dalmacije*. Jugoslovensko entomološko društvo, posebna izdanja 2, svezak 3: 1-387.
- NOVAK, P. (1952): *Kornjaši jadranskog primorja (Coleoptera)*. Jugoslovenska akademija nauka i umjetnosti: 409-418.
- PAGANETTI-HUMMLER, G. (1901): *Beitrag zur Fauna von Süddalmatien*. Illustrierte Zeitschrift für Entomologie: 150.
- PFEFFER, A. (1955): *Fauna ČSR - kurovci*. Československé Akademie věd, svezak 6: 1-317.
- REITTER, E. (1894): Bestimmungs-Tabelle der Borkenkäfer (Scolytidae) aus Europa und den angrenzenden Ländern. *Verh. naturw. Ver. Brünn*, 34: 36-97.
- REITTER, E. (1913): Bestimmungs-Tabelle der Borkenkäfer (Scolytidae) aus Europa und den angrenzenden Ländern. *Wiener Entomol. Zeitung*, Band XXXI: 3-116.
- REITTER, E. (1916): *Fauna Germanica*. Band V: 268-306.



SCHLOSSER-KLEKOVSKI, J.K. (1878): *Fauna kornjašah Trojedne Kraljevine*. Jugoslovenska akademija znanosti i umjetnosti, svezak 2: 508-523.

СПАИЋ, I. (1983): Fauna kornjašah (Coleoptera, Insecta) Biokova. *Acta Biocovica*, Vol. II: 167-170.

СТАРК, V.N. (1952): *Fauna SSSR - koroedi*. Zool. Inst. An SSSR, tom XXXI: 1-456.

ПРИЛОГ ПОЗНАВАЊУ РАСПРОСТРАЊЕЊА ВРСТЕ  
*THAMNURGUS VARIPES* EICHHOFF (COLEOPTERA: SCOLYTIDAE)  
У ИСТОЧНОЈ СРБИЈИ

М. СТЕВАНОВИЋ

**И з в о д**

У раду се излажу резултати истраживања сипца *Thamnurgus varipes* Eichhoff у источној Србији, са приказом распрострањења ове врсте која је по први пут утврђена код нас.

Мада STARK (1952) и претходну Југославију убраја у ареал врсте *Thamnurgus varipes* Eichhoff, у овом прилогу се по први пут наводе налази ове врсте у Србији, чиме се потврђује наша, горе поменута претпоставка.

У току петогодишњих истраживања, врста је пронађена на 22 локалитета у источној Србији у периоду између маја и августа. Налажена је на шумској млечики *Euphorbia amygdaloides* L., чије су стабљике показивале карактеристична обележја присуства овог поткорњака. Врста је утврђена у свим развојним стадијумима, у релативно малом броју примерака.

Како шумска млечика расте на читавој територији Југославије, то се могу са сигурношћу очекивати нови налази поменутог сипца.

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