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New record of *Hylobius (Callirus) pinastri* (Gyllenhal, 1813) (Coleoptera, Curculionidae) in Volyn Region

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Abstract. *H. pinastri* (small pine weevil) inhabits almost the entire Palearctic. Lives in coniferous and mixed forests, mainly in wet spruce forests on *Picea abies*, rarely *Pinus sylvestris* (Pinaceae). Larvae develop in bark of stumps, lower parts of trunks and cutted woods. In Ukraine, this species occurs mainly in the north-western part (Volyn, Rivne, Zhytomyr, Lviv, Ivano-Frankivsk regions) and one record was published from the east of the country (Kharkiv region). In the Volyn region, one specimen of *H. pinastri* was found in the in the Shatskyi National Nature Park.

The collection of material was carried out by counting animals on six test plots from 05.07.2022 to 09.25.2022. Three Barber traps were placed in each trial area. The traps were located at a distance of 50 m from each other.

New finds of *H. pinastri* were registered in the Kivertsi National Park "Tsumanska Pushcha". 1 female was collected in a pine forest; 3 females and 2 males – on the border between the spruce forest and dry spruces; 1 male and 1 female – in dry spruces forest; 5 females was collected in a spruce forest with mixed hardwoods.

The paper provides a key for the identification of two closely related species, *H. pinastri* and *H. abietis*.

Current finds of this species confirm previously published data on its occurrence in the Volyn region and the contiguity of this species to spruce stands. It can be expected that *H. pinastri* can be found in other places of Ukraine.

Key words: *Hylobius pinastri*, wet spruce forests, Kivertsi National Park «Tsumanska Pushcha».

Нова знахідка *Hylobius (Callirus) pinastri* (Gyllenhal, 1813) (Coleoptera, Curculionidae) у Волинській обл.

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Резюме. *H. pinastri* (малий сосновий довгоносик) населяє майже всю Палеарктику. Мешкає в хвойних і мішаних, переважно у вологих ялинових лісах на *Picea abies*, рідше *Pinus sylvestris* (Pinaceae). Личинки розвиваються в корі пнів, нижніх частинах стовбурів і зрізах деревини. В Україні цей вид трапляється переважно в північно-західній частині (Волинська, Рівненська, Житомирська, Львівська, Івано-Франківська області) і один запис опубліковано зі сходу країни (Харківська область). У Волинській області знайдено один екземпляр *H. pinastri* в Шацькому районі.

Збір матеріалу проводився шляхом обліків тварин на шести пробних площах з 07.05.2022 до 25.09.2022 року. На кожній пробній площі розташовувались три пастки Барбера. Пастки знаходились на відстані 50 м одна від одної.

Нові знахідки *H. pinastri* зареєстровані в Ківерцівському національному парку «Цуманська пуща». У сосновому лісі зібрано 1 самку; на межі між ялиновим лісом і ялиновим сухостоєм: 3 самки та 2 самці; у ялиновому сухостой – 1 самця та 1 самку; у ялиновому лісі з домішками листяних порід – 5 самок.

У роботі наведено ключ для визначення двох близьких видів *H. pinastri* та *H. abietis*.

Сучасні знахідки цього виду підтверджують раніше опубліковані дані про його наявність у Волинській області і приуроченість цього виду до ялинових деревостанів. Можна очікувати, що *H. pinastri* може бути знайдений і в інших місцях України.

Ключові слова: *Hylobius pinastri*, вологі ялинові ліси, Ківерцівський національний природний парк «Цуманська пуща».

INTRODUCTION

H. pinastri (lesser pine weevil) inhabits almost all Palaearctic [1].

Lives in coniferous and mixed forests, mainly in wet spruce forests on *Picea abies* and sometimes on *Pinus sylvestri* (Pinaceae) [2, 3]. Larvae develop in bark of stumps, lower parts of trunks and cutted woods.

In Ukraine this species occurs mainly in north-western part (Volyn, Rivne, Zhytomyr, Lviv, Ivano-Frankivsk Regions) [4–12] and one record was published from east of the country (Kharkiv Region) [9] (Fig. 1). Records in Rivne, Zhytomyr and Ivano-Frankivsk Regions are not documented surely being included in Volynian Polissia (Rivne, Zhytomyr) [10] and in East Galicia (Ivano-Frankivsk) [7, 8].

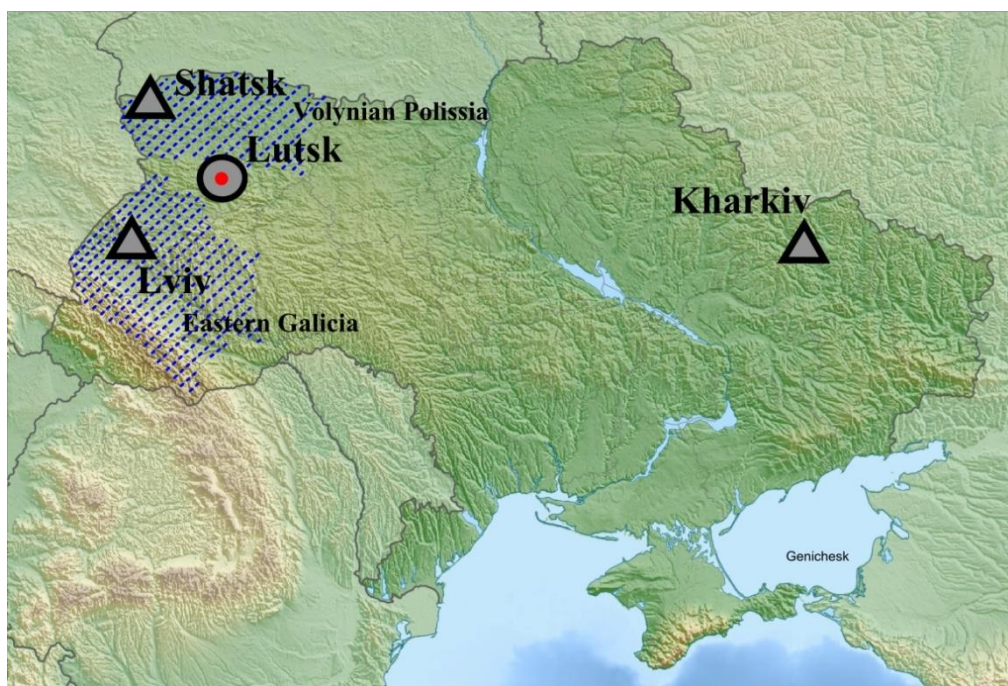


Fig. 1. Findings of *H. pinastri* in Ukraine, red dot marks new record, a possible range is indicated by hatching

MATERIALS AND METHODS

The material sampling was carried out by animal surveys on trial areas (TA) from 05/07/2022 to

09/25/2022. Three Barber traps were placed in each trial area. Barber's trap is a 0.5 liter plastic container placed flush with ground level [13]. The traps were located at a distance of 50 m from each other (Fig. 2).



Fig. 2. Soil traps in which the species was captured : a – TA-16, b – TA-18

Trap G-8 was located in a pine forest, its coordinates are: 50.91265333 N, 25.89158333 E. Trap G-16 was located on the border between spruce forest and dry spruce trees (Fig. 3), its coordinates are:

50.91014324 N, 25.87844799 E. Trap G-18 was located in spruce forest mixed with deciduous species (Fig. 3). Trap coordinates: 50.90967833 N, 25.87804000 E.



Fig. 3. View of biotope where traps were installed: a – TA-16, b – TA-18

RESULTS

In Volyn Region one specimen of *H. pinastri* was found in Shatsk Distr., env. of Kamianka, 6.vi.1999 (Kravchenko) [11, 12], documented record.

New findings of *H. pinastri* were registered in the Kiverts National Park «Tsumanska Pushcha». 1 ♀ was collected in a pine forest, 14.05.2022 (Zinchenko O.P.); 1 ♀ 14.05.2022 (Zinchenko O.P.), 1 ♂ 11.06.2022 (Sukhomlin K.B.), 1 ♂, 1 ♀ 28.05.2022 (Trush T. V.), 1 ♀ 25.06.2022 (O.P. Zinchenko) – on the border between spruce forest and dry spruces; 1 ♂, 1 ♀ 11.06.2022 (Sukhomlin K.B.) – in dry spruces forest; 1 ♀ 28.05.2022 (Trush T. V.), 4 ♀ 11.06.2022 (Sukhomlin K.B.) was collected in a spruce forest with mixed hardwoods.

DISCUSSION

Both *H. pinastri* and *H. abietis* were collected in 41 pitfall traps starting from 14.05.2022, but the last *H. pinastri* was found 11.06.2022 and *H. abietis* – 16.07.2022. From 145 *Hylobius* specimens collected here only 13 (9%) were *H. pinastri*. This species was found in 7 pitfall traps and in 4 of them both species were recorded, in one trap on the border between spruce forest and dry spruces – twice, 14.05 and 11.06.

The problem of recording of this species consists in distinguishing between *H. pinastri* and large pine weevil

H. abietis. The small specimens of *H. abietis* may be confused with *H. pinastri* (Fig. 4).

We propose here a preliminary key to differentiate both species by external morphological features:

1. Central longitudinal metasternal depression narrow and elongate (Fig. 6). Yellowish dorsal pattern on pronotum and elytra blurred (Fig. 8, 10). Dark areas of elytra matte (Fig. 10). Strial punctes at the first half of elytra narrow, of approximately the same or lesser width as the interstria (Fig. 10). Elytra in humeral area are the widest. Humeri angulated. Sides of elytra subparallel or converged behind humeri (Fig. 4).*H. abietis*

– Central longitudinal metasternal depression wide and subtriangular (Fig. 5). Yellowish dorsal pattern on pronotum and elytra sharp (Fig. 7, 9). Dark areas of elytra slightly shining (Fig. 9). Strial punctes at the first half of elytra wide, of approximately the same or larger width as the interstria (Fig. 9). Elytra of the more or less same width in humeral area and apical half. Humeri rounded. Sides of elytra subparallel or expanded behind humeri (Fig. 4).*H. Pinastri*

CONCLUSION

Current finds of this species confirm previously published data on its occurrence in Volyn Region [11, 12] and the contiguity of this species to spruce stands [3]. It can be expected that *H. pinastri* may be found in other locations in Ukraine.



Fig. 4. Habitus of *H. pinastri*, ♀ (left), *H. abietis* ♀ (right)

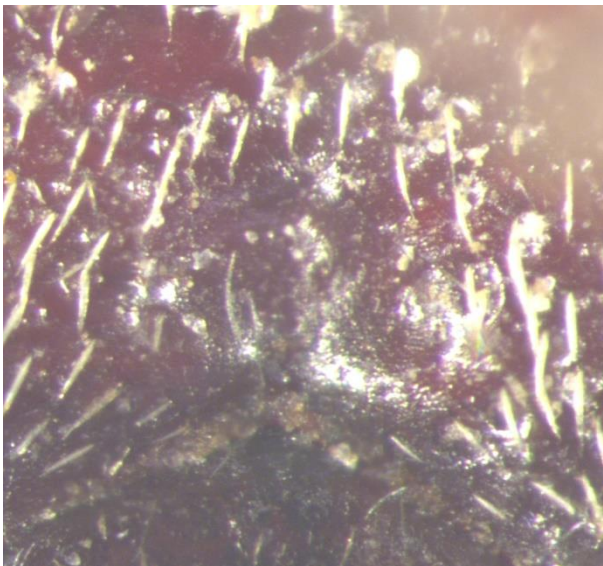


Fig. 5. Metasternal depression of *H. pinastri*, ♀

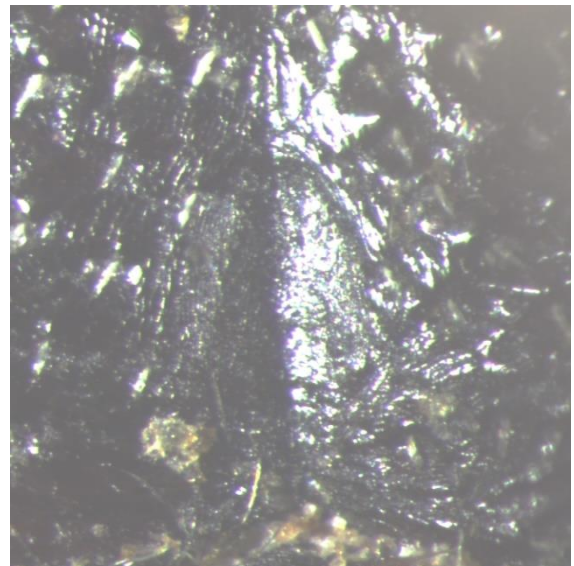


Fig. 6. Metasternal depression of *H. abietis* ♀



Fig. 7. Pronotal pattern of *H. pinastri*, ♀



Fig. 8. Pronotal pattern of *H. abietis* ♀



Fig. 9. Left elytron of *H. pinastri*, ♀



Fig. 10. Left elytron of *H. abietis* ♀

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