NEW DATA ON HARLEQUIN LADYBIRD HARMONIA AXYRIDIS (PALLAS, 1773) (COLEOPTERA, COCCINELLIDAE) DISTRIBUTION IN BELARUS

I. A. Solodovnikov, V. M. Kotsur, Ye. A. Derzhinsky
Educational establishment «Vitebsk State P.M. Masherov University», 33 Moskovskiy Ave., 210038, Vitebsk, Belarus
Corresponding author: I. A. Solodovnikov (*iasolodov@mail.ru*)

Introduction. Multicolored asian ladybird, or harlequin ladybird (*Harmonia axyridis* (Pallas, 1773)) is entomophagous, bug, but feeding on ripe fruits is also marked. According to a number of authors, in case of mass reproduction, this ladybird can damage winemaking, viticulture and fruit growing because the beetles can feed on fruits. In addition, it causes disturbance to people, accumulating in homes in autumn, and leads to a decrease in the number of native Coccinellidae species in various regions. However, recently the harmfulness of this species has been questioned. The possible way of invasion of *Harmonia axyridis* in Belarus from adjacent territories of the Ukraine, Baltic countries and Poland are individual migration, unintentional introduction of imago with fruits and transportation with cars and other vehicles especially during the search of overwintering places. The species spreads quickly and adapts well to local conditions. Depending on the weather characteristics of the growing seasons in the region, it can give several generations per year, which overlap in terms of development. Adults overwinter in various shelters. (Alekhnovich et al., 2016; Solodovnikov, Kotsur & Derzhinsky, 2020) in Belarus.

Until 2018, *Harmonia axyridis* was marked only in southern and central parts of Belarus (Kruglova, 2015; Ostrovsky, 2017). In Vitebsk region the species was first found in 2018 in Dokshitsy district (Alekhnovich et al., 2016). Next, it was caught near Vitebsk in 2019 (Solodovnikov, Kotsur & Derzhinsky, 2020).

Materials and methods. Ladybird were collected with standard entomological techniques by net sweeping and manual collection in 2019–2020.

Results. In 2020, many new locations of *Harmonia axyridis* were found throughout the Belarus. The exact information about these finds are given below. **Vitebsk region,** Senno distr., Novoselki vill. env., south bank of Soro lake, on the leaves of *Alnus incana*, h = 133 м, 54.993845° N, 29.820624° E, 11.06.2020 (I.A. Solodovnikov), 1 female; Vitebsk distr., 1,5 km south from Vitebsk, slope of railway hill between Lutchesa and Sosnovka stations, near the bridge, on the flowers of *Verbascum nigrum*, h = 149 m, 55.138632° N, 30.207342° E, 29.06.2019 (I.A. Solodovnikov), 1 ex. (‘fresh’ imago, exiting the pupa in nature); Vitebsk distr., Bolshuhi vill., 28 km east from Vitebsk, on the fence, h = 242 m, 55.20376° N, 30.64032° E, 11.06.2020 (V.M. Kotsur), 1 ex.; Vitebsk, Pravda str., 63-6, on the southern wall of building, h = 187 m, 55.179239° N, 30.244589° E, 29.10.2020 (I.A. Solodovnikov), 6 ex.; Vitebsk, Moskovskiy Ave., 33, VSU main campus, on the window of fourth floor, 29.10.2020 (V.M. Kotsur), 1 ex.; Vitebsk, Moskovskiy Ave., 13-4, on the flowers of *Solidago canadensis*, h = 165 m, 55.180100° N, 30.209935° E, 20.09.2020 (V.M. Kotsur), 1 m; Vitebsk, Pobedy Ave., 10, on the window, h = 173 m, 55.172679° N, 30.227449° E, 03.10.2020 (V.M. Kotsur), 1 ex. **Grodno region**, Grodno, crossing of Slavinsky and Pobedy str., on the wall of building, h = 166 m, 53°38'53.5" N, 23°49'58.9" E, 20.09.2019 (A. Shapovalov), 20 ex. **Mogilev region,** Krichev distr., Krichev town, near the bridge across Sozh river, by net sweeping on *Prunus padus*, 17.05.2020 (I.A. Solodovnikov), 1 ex. **Brest region,** Brest distr., Orhovo vill., (south of Tomashevka vill.), net sweeping in grasses on the bank of Orhovo lake, 51.539116° N, 23.607084° E, h = 162 m, 04–05.07.2020 (Kuznetsov V.A.), 1 ex.; Drogichin distr., Yamnik vill., «Zvanets» natural reservation, on the window, 04.05.2019 (V.M. Kotsur), 25 ex. **Gomel region,** Lel`chitsy distr., 2 km southwest from Markovskoe vill., 51°42'43.74"N, 28°11'8.02"E, pine-oak forest, day flight on sandy bank of Ubort` river, 22.10.2020 (Ye.A. Derzhinsky), more than 100 ex.; Mozyr` distr., 1,5 km west from Strelsk vill., ravine with hornbeam, oak and maple, on the leaves of *Salix* sp., h = 139 m, N 51.947952°, E 29.447035°, 13.05.2020

(I.A. Solodovnikov, V.M. Kotsur), 14 ex.; Kalinkovichi distr., 2 km southwest from Kozlovichi vill., clearing in a pine forest, on the grass, h = 155 м, 52.360537° N, 29.376625° E, 28.07.2020 (I.A. Solodovnikov), 1 ex.

Conclusion. During 2020, it was dramatic increasing the number of *Harmonia axyridis* locations. Distribution range expansion in the northern part of Belarus was indicated. Some locations were in anthropogenic ecosystems and some in natural habitats. The possible reason of this increasing might be abnormal warm winter 2019–2020.

References

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