https://www.doi.org/10.33910/2686-9519-2025-17-1-17-26
https://zoobank.org/References/C37BC1CE-FBD4-42FC-B6F3-39B5DBF11E08

UDC UDC 595.754

Molipteryx fuliginosa (Uhler, 1860) (Heteroptera, Coreidae) in the V. L. Komarov Ussuriysky State Nature Reserve and adjacent territory (Russian Far East)

T. O. Markova✉, M. V. Maslov, L. A. Fedina

Federal Scientific Center of the East Asia Terrestrial Biodiversity FEB RAS, 159 100-letiya Vladivostoka Ave., 690022, Vladivostok, Russia

Authors

Tatyana O. Markova
E-mail: martania@mail.ru
SPIN: 7826-9502
Scopus Author ID: 57193241902
ResearcherID: N-6757-2016
ORCID: 0000-0001-5397-4253

Mikhail V. Maslov
E-mail: nippon_mvm@mail.ru
SPIN: 2706-2420
Scopus Author ID: 55620309700
ResearcherID: O-1072-2015
ORCID: 0000-0003-4193-7425

Lyubov A. Fedina
E-mail: tacla09@mail.ru
SPIN: 7988-6456
Scopus Author ID: 57211372904
ORCID: 0000-0002-1430-2777

Abstract. The article presents a comprehensive overview of the distribution of *Molipteryx fuliginosa* (Uhler, 1860) (Heteroptera, Coreidae) within the V. L. Komarov Ussuriysky State Nature Reserve and its surrounding areas in the Russian Far East. The findings are based on field collections conducted by the authors between 2015 and 2024, supplemented by continuous observations since 1998. The colonization intensity of various habitats was assessed through the presence of overwintered adults at the onset of the growing season, mating pairs, and larvae of different instars. Results indicate that *M. fuliginosa* predominantly inhabits ecotones and illuminated areas, such as forest roads, clearings, and areas around ranger stations, while being absent in densely forested regions. The species shows a preference for mesophilic plant associations with moderate insolation. Additionally, we report *Angelica dahurica* (Apiaceae), *Adenocaulon himalaicus*, *Cirsium maacki*, *Synurus deltoides* (Asteraceae), and *Maackia amurensis* (Fabaceae) as newly documented host plants for *M. fuliginosa*.

Keywords: leaf-footed bugs, Primorsky Krai, distribution, location, host plants, abundance, nymphs, adults

Molipteryx fuliginosa (Uhler, 1860) (Heteroptera, Coreidae) на территории Уссурийского государственного природного заповедника им. В. Л. Комарова и сопредельной ему территории (Дальний Восток России)

Т. О. Маркова✉, М. В. Маслов, Л. А. Федина

Федеральный научный центр биоразнообразия наземной биоты Восточной Азии ДВО РАН,
пр-т 100-летия Владивостока, д. 159, 690022, г. Владивосток, Россия

Сведения об авторах

Маркова Татьяна Олеговна
E-mail: martania@mail.ru
SPIN-код: 7826-9502
Scopus Author ID: 57193241902
ResearcherID: N-6757-2016
ORCID: 0000-0001-5397-4253

Маслов Михаил Вениаминович
E-mail: nippon_mvm@mail.ru
SPIN-код: 2706-2420
Scopus Author ID: 55620309700
ResearcherID: O-1072-2015
ORCID: 0000-0003-4193-7425

Федина Любовь Александровна
E-mail: tacla09@mail.ru
SPIN-код: 7988-6456
Scopus Author ID: 57211372904
ORCID: 0000-0002-1430-2777

Аннотация. Обобщены данные наблюдений за расселением *Molipteryx fuliginosa* (Uhler, 1860) (Heteroptera, Coreidae) на территории Уссурийского государственного природного заповедника им. В. Л. Комарова. Основой послужили материалы, собранные авторами в 2015–2024 гг., а также постоянные наблюдения с 1998 г. Степень заселения различных участков оценивалась по присутствию перезимовавших имаго на растениях с начала вегетационного периода, копулирующих пар, разновозрастных личинок. Наиболее заселенными местообитаниями являются экотонные и осветленные участки (лесные дороги, поляны, территории вокруг кордонов и др.). Этот клоп-краевик, предпочитающий мезофильные растительные ассоциации с умеренной инсоляцией, в глубине леса нами не был обнаружен. В качестве кормовых растений клопа впервые отмечены *Angelica dahurica* (Apiaceae), *Adenocaulon himalaicus*, *Cirsium maacki*, *Synurus deltoides* (Asteraceae), *Maackia amurensis* (Fabaceae).

Ключевые слова: клопы-краевики, Приморский край, распространение, местонахождение, кормовые растения, обилие, личинки, имаго

Introduction

In recent years, many East Asian insect species have been observed to expand their ranges into the Russian Far East. Among them, the leaf-footed bug, *Molipteryx fuliginosa* (Uhler, 1860) (Coreidae), has become an alien species to the fauna of eastern Russia. Species of the genus *Molipteryx* Kiritshenko, 1916 are classified within the tribe Mictini Amyot et Serville, 1843, of the subfamily Coreinae Leach, 1815. Of them, four are distributed in the southeastern Palearctic and Oriental regions (Dolling 2006; Vinokurov et al. 2010; Aukema et al. 2013). *M. fuliginosa* is the sole representative of this genus recorded from Russia. Prior to the late 20th century, *M. fuliginosa* was known from northeastern China, the Korean Peninsula, and Japan (Kyushu, Hokkaido). In a key to the bugs of China (Hsiao et al. 1977), the genus *Molipteryx* was erroneously synonymized with *Derepteryx* (Kerzhner, Kanyukova 1998). The species is also listed among economically significant insects of China (Zhang 1985) under the name *Derepteryx fuliginosa*, with the following host plants identified: *Liquidambar formosana* Hance (Altingiaceae), *Rhus chinensis* Mill. (Anacardiaceae), *Petasites* sp. (Asteraceae), *Rubus* sp., and *Potentilla fragarioides* L. (Rosaceae). A few studies have reported associations with *Camellia oleifera* Abel (Theaceae) (Luo et al. 2014), *Bambusa* sp. (Poaceae, Bambusoideae) (Wang et al. 2002), and *Oryza sp. (*Poaceae) (Chen et al. 2014). However, to date, no population outbreaks of this species have been reported from China. Photographs of two nymphal instars with captions in Japanese were published in a field guide to bugs of Japan (Tomokuni 1993). In South Korea, the development cycle of *M. fuliginosa* was studied in a laboratory over a single season. In natural conditions, the species was found on the following plants: *Rubus oldhami* Miquel, *R. coreanus*

 https://www.doi.org/10.33910/2686-9519-2025-17-1-17-26

Miquel, *R. crataeagifolius* Bunge (Rosaceae), *Zelkowa serrata* Makino, and *Ulmus davidiana* Planchon var. *japonica* Nakai (Ulmaceae) (Park 1996).

In Russia, *M. fuliginosa* was first recorded in Khabarovsk Krai and Primorsky Krai in 1987 and 1992, respectively. In 2012, reports highlighted local population outbreaks of this species and the damage it caused to cultivated plants in Primorsky Krai (Kerzhner, Kanyukova 1998; Kanyukova 2012; Markova et al. 2016b; etc.). To date, we have studied the phenology, reproductive behavior, and morphology of the pre-adult stages of *M. fuliginosa* in Primorsky Krai (Markova et al. 2017a; 2017b; 2021a; 2022). Recent findings of *M. fuliginosa* in the Russian Far East have provided valuable insights into the species' current range and its gradual adaptation to regional conditions (Markova et al. 2021b). Over a relatively short historical period, the invasive species has become naturalized across much of the southern Russian Far East. It is now observed to be expanding into both anthropogenic and natural ecosystems, including forest communities. In addition to continental habitats, where the first individuals were found, *M. fuliginosa* has also settled in coastal areas such as the Muravyov-Amursky Peninsula, the Gamov Peninsula, and Furugelm Island — the southernmost island of Russia in the Sea of Japan — as well as the eastern coast of the region, such as the city of Nakhodka and the settlement of Terney (Markova et al. 2021b).

To date, *M. fuliginosa* has been recorded from five localities in Khabarovsk Krai and 46 localities in Primorsky Krai, including several protected areas. Among them are the Anyuysky National Park, the Sikhote-Alinsky State Nature Biosphere Reserve, the Ussuriysky State Nature Reserve, and the Far Eastern Marine Biosphere State Nature Reserve (the latter two are now part of the Land of the Leopard National Park).

The goal of the study was to clarify the dispersal and distribution of *M. fuliginosa* and identify its host plants within the V. L. Komarov Ussuriysky State Nature Reserve in the Russian Far East.

Material and methods

The study was conducted within the territory of the V. L. Komarov Ussuriysky State Nature Reserve (referred to as the Reserve in what follows) and its adjacent area, the Land of the Leopard National Park. The Reserve is located in the southwestern part of the Sikhote-Alin mountain range, on the southern slopes of the Przhevalsky Range, within Ussuriysky Urban Okrug and Shkotovsky District. The coordinates of the Reserve are 43.4049°N, 132.3244°E; the total area, 41,234 ha; the protected area, 57,800 ha. The Reserve encompasses the upper parts of the drainage basins of the Komarovka and Artemovka rivers, each approximately 100 km long. The climate in the Reserve is influenced by the Far Eastern monsoon. The area lies within the southern subzone of mixed coniferous and deciduous forests. Dominant species in most forest types are *Pinus koraiensis* Siebold et Zucc. (41.6%) and *Picea ajanensis* (Lindl. et Gord.) Fisch. ex Carr. (23.2%) (Zhabyko 2006).

The study was based on materials collected by the present authors between 2015 and 2024, supplemented by long-term observations conducted since 1998. We examined both forest and open habitats, including a shoulder of a dirt road northeast of the village of Kaymanovka leading to the Reserve, ecotonal segments of forest roads, floodplain forests, overgrown glades (ranger station 1, Komarovo-Zapovednoye), and wormwood/gramineous/mixed forbs glades (Anikin and Peishula ranger stations) (Figs. 1–2). Data collection methods included visual observations, manual collection of insects, and photography, conducted from early May to late October. During route surveys of biocoenoses, a GPS unit and the MapSource Trip Waypoint Manager software were used to record and display geographic data.

The abundance of insects was estimated using the methodology we adopted earlier in (Markova et al. 2019; 2021b). When 1 to 4 individuals in the adult stage were observed across the study years, these were classified as 'single.' A range of 5 to 10 individuals, including both

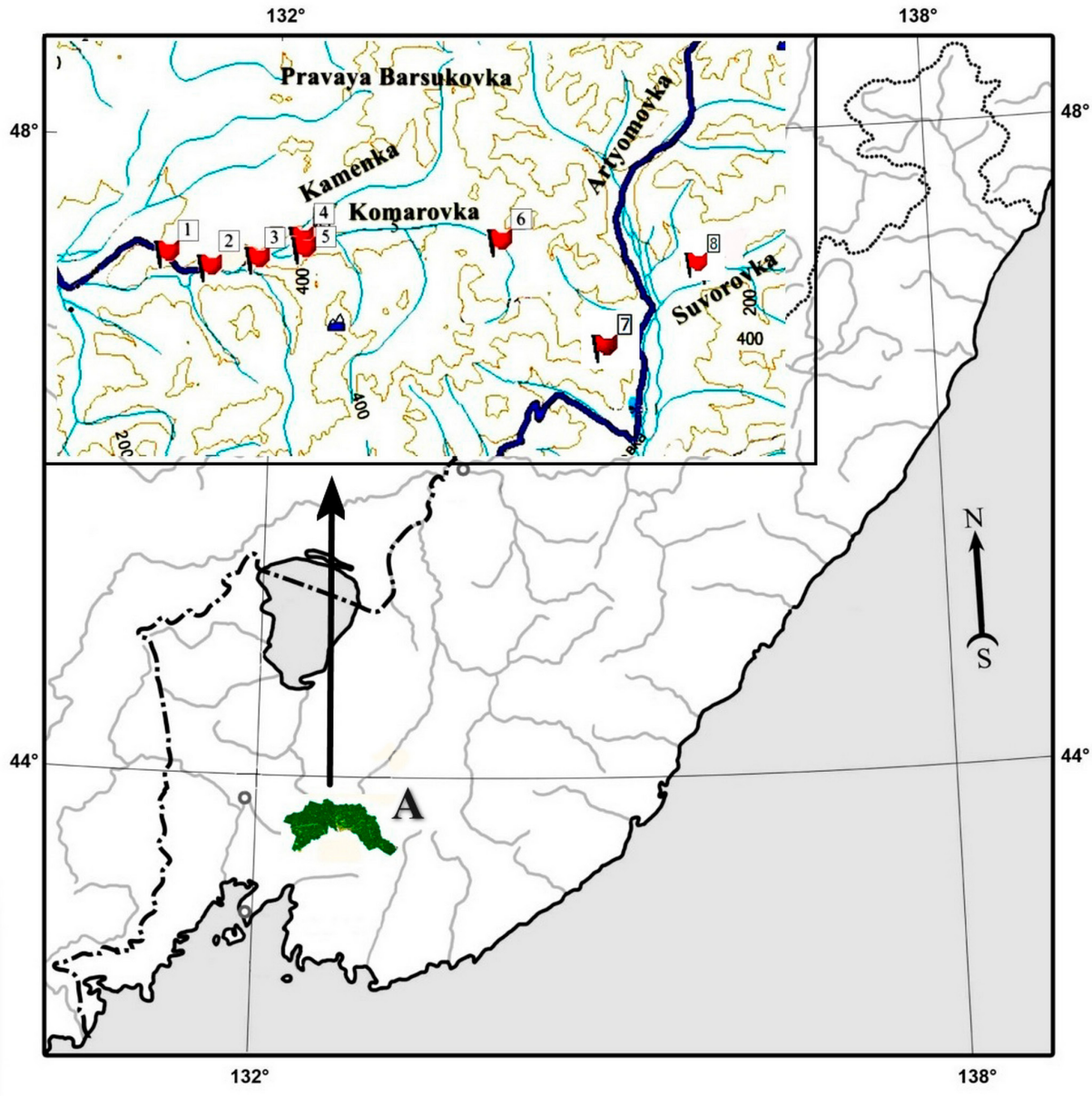

Fig. 1. Localities of *Molipteryx fuliginosa* findings in the V. L. Komarov Ussuriysky State Nature Reserve and adjacent territory: *A* — Reserve; *1* — Ussuriysky Urban Okrug, vicinities of Kaymanovka Village, shoulder of dirt road to the Reserve; *2* — Reserve, ranger station; *3* — Turov spring; *4* — Kamenka River valley; *5* — Komarovka River valley (Komarovo-Zapovednoye, old village); *6* — Pravaya Komarovka river (Mironov spring); *7* — Shkotovsky District, Reserve, Anikin ranger station; *8* — Peishula ranger station

Рис. 1. Местонахождение *Molipteryx fuliginosa* на территории Уссурийского государственного природного заповедника им. В. Л. Комарова и сопредельной: *A* — Уссурийского государственного природного заповедника; *1* — Уссурийский городской округ, окр. с. Каймановка, обочина грунтовой дороги к Уссурийскому заповеднику; *2* — Уссурийский заповедник, 1 кордон; *3* — ключ Туров; *4* — долина реки Каменка; *5* — долина реки Комаровка (Комарово-Заповедное, старый поселок); *6* — правая Комаровка (ключ Миронов); *7* — Шкотовский район, Уссурийский заповедник, кордон «Аникин»; *8* — кордон «Пейшула»

nymphal and adult stages, was categorized as 'moderate'. When 10 or more individuals, both nymphs and adults, were observed occupying plant groups within 0.5–1 m of each other, showing visible feeding damage, this was classified as 'moderate/mass'. Species were catego-

 https://www.doi.org/10.33910/2686-9519-2025-17-1-17-26

rized as 'common' if a moderate or moderate/mass presence of adults and pre-adults was observed consistently over the preceding two to three years. We considered that isolated occurrences of adult bugs on plants could not confirm their status as host plants without additional observations. Trophic interactions were studied in field conditions and further validated through development observations in stationary netting cages (Markova et al. 2018). The occupancy of various sites within the study area was assessed based on the presence of overwintered adults on plants at the start of the growing season, the detection of mating pairs, and the identification of nymphs across various instars.

The Latin names of the plants and the species authors were verified against the International Plant Names Index and Plants of the World Online databases (International plant… 2024; Plants of the world… 2024). The material is partially deposited in the personal collection of the first author and in the collection of the Zoological Museum at Far Eastern Federal University, Vladivostok.

Material. Ussuriysky Urban Okrug, vicinities of Kaymanovka Village (1.5–5 km) (43.64126°N, 132.27681°E), shoulder of dirt road to Ussuriysky Reserve: 45♂♂, 63♀♀, 76 instar V nymphs, 27 instar IV nymphs, 13 instar III nymphs, and 1 instar II nymph, on

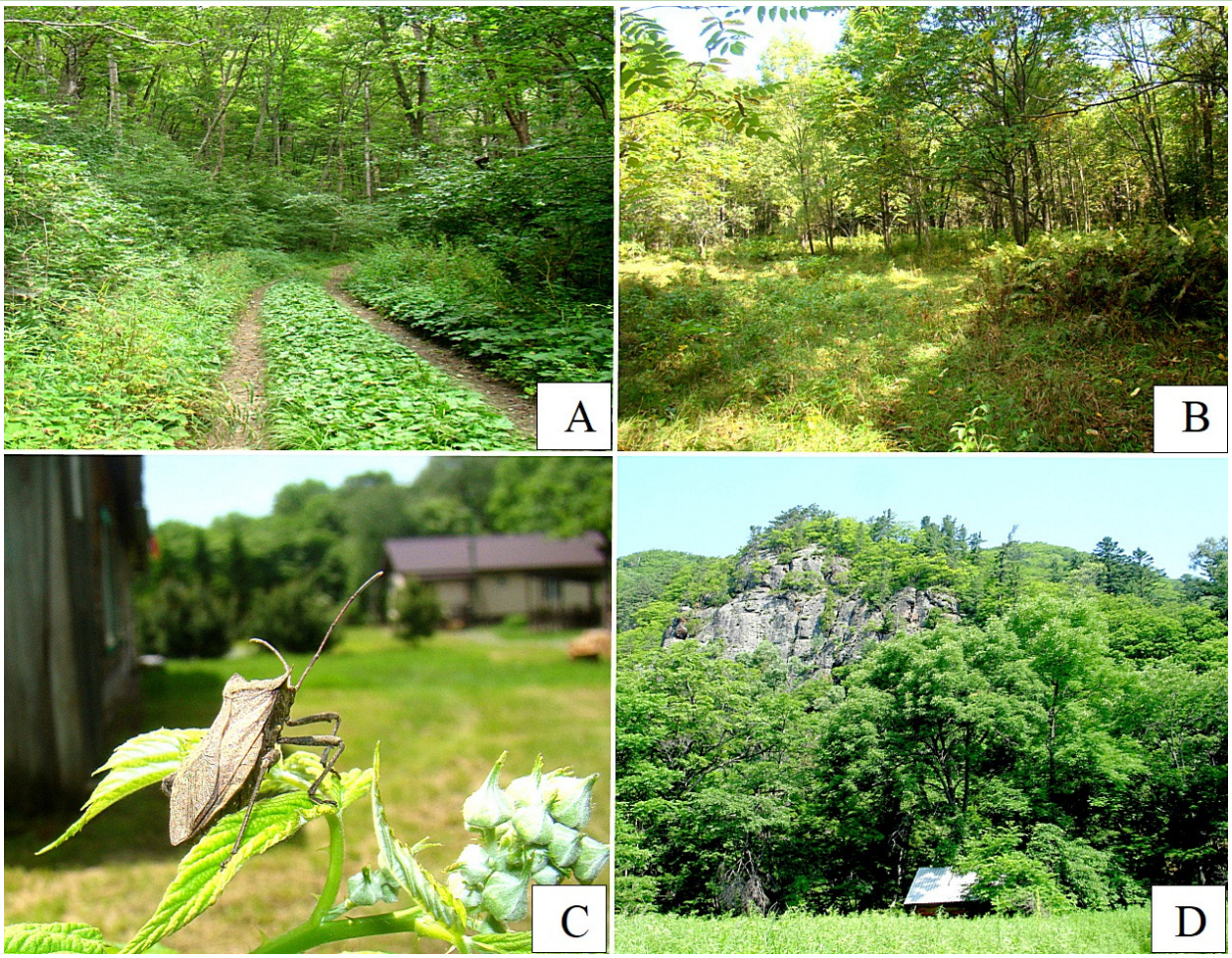

Fig. 2. Biocoenoses characteristic of *Molipteryx fuliginosa* habitats in the V. L. Komarov Ussuriysky State Nature Reserve: *A* — forest road, ecotone segments; *B* — cleared area of forest, overgrowing glade; *C* — a mowed gramineous/mixed forbs glade near an inhabited cabin, Anikin ranger station; *D* — gramineous / mixed forbs meadow, Peishula ranger station

Рис. 2. Биоценозы, характерные для обитания *Molipteryx fuliginosa* на территории Уссурийского государственного природного заповедника им. В. Л. Комарова: *A* — лесная дорога, экотонные участки; *B* — осветленный участок леса, зарастающая поляна; *C* — обкошенная злаково-разнотравная поляна возле жилого домика, кордон «Аникин»; *D* — злаково-разнотравный луг, кордон «Пейшула»

Adenocaulon himalaicus Edgew., *Agrimonia striata* Michx., *Ambrosia artemisiifolia* L., *Cirsium maackii* Maxim., *C. pendulum* Fisch., *Filipendula palmata* (Pall.) Maxim., *Rubus crataegifolius, Sanguisorba officinalis* L. and *Maackia amurensis* Rupr. et Maxim. 03–29.08.2015, 19.08.2016, 09–22.09.2016, 30.05, 31.07, 03–15.08.2017, and 10–28.06.2024, T. Markova, M. Maslov, L. Fedina.

Ussuriysky Urban Okrug, Ussuriysky State Nature Reserve, shoulder of forest road: ranger station 1 (43.63669°N, E132.29804°E), 10♂, 11♀, 3 instar V nymphs, on *Agrimonia striata*, *Rubus crataegifolius*, and *Rosa rugosa* Thunb., 26.08.2016, 16–27.06.2017, 10.06.2024, M. Maslov; Turov spring (43.63940°N, 132.32160°E), 5♀♀, on *Filipendula palmata* and *Rubus crataegifolius*, 15.09.2016; 14.05.2017, 10.06.2024, M. Maslov; Kamenka River valley (43.64653°N, 132.34287°E), 10♂♂, 15♀♀, 7 instar V nymphs, on *Angelica dahurica* (Fisch.) Benth. et Hook. fil ex Franch et Savat., *Filipendula palmata*, and *Rubus crataegifolius*, 15.09.2016, 14.05, 16–22.06, 11.07,

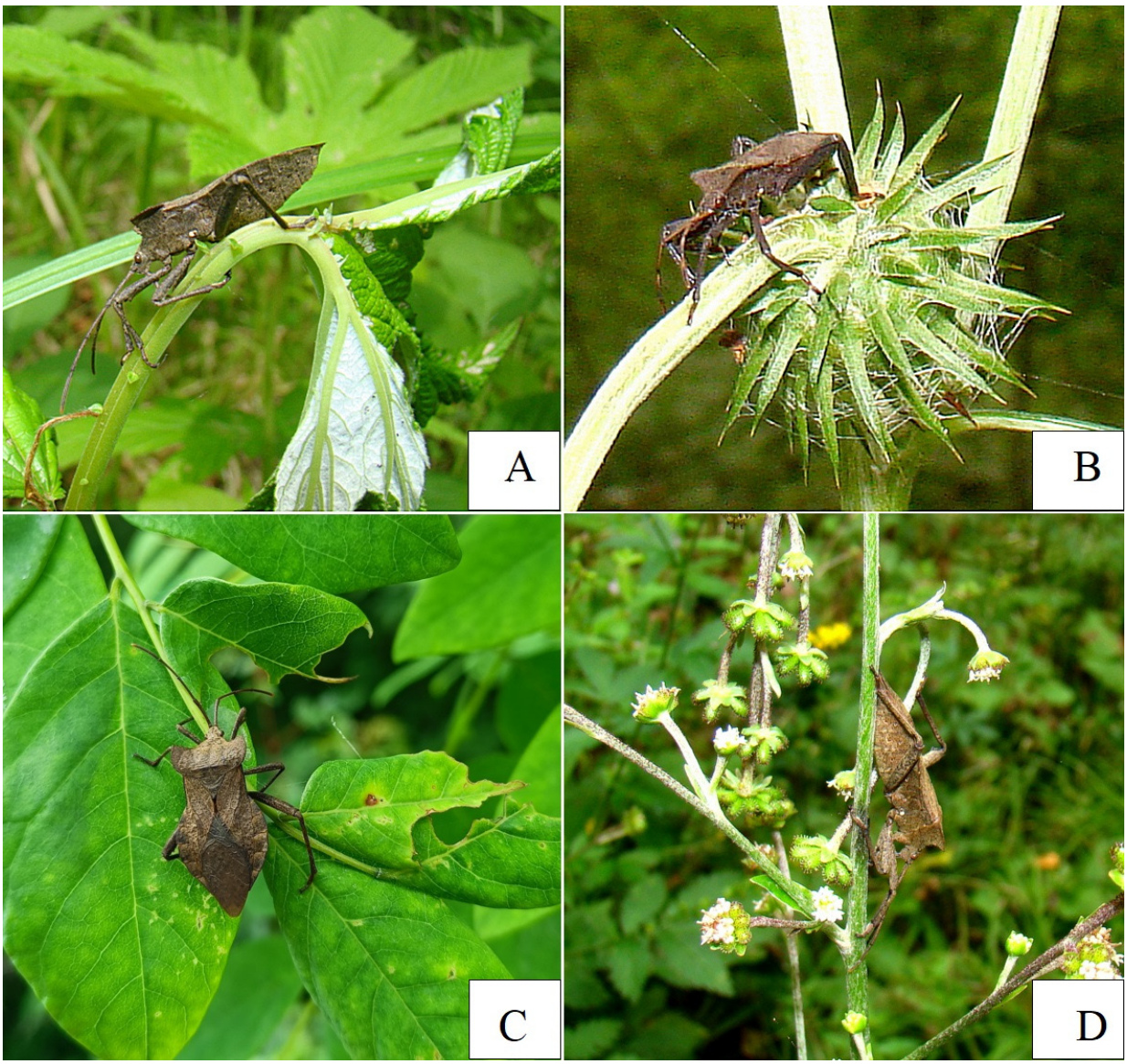

Fig. 3. *Molipteryx fuliginosa* feeding in the Ussuriysky Reserve: *A* — adult on *Filipendula palmata*; *B* — 5th instar nymph on *Synurus deltoides*; *C* — adult on *Maackia amurensis*; *D* — adult on *Adenocaulon himalaicus* (photo by M. Maslov)

Рис. 3. Питание *Molipteryx fuliginosa* и повреждения кормовых растений в Уссурийском заповеднике: *A* — имаго на *Filipendula palmata*; *B* — нимфа V возраста на *Synurus deltoides*; *C* — имаго на маакии амурской; *D* — имаго на *Adenocaulon himalaicus* (фото М. Маслова)

 https://www.doi.org/10.33910/2686-9519-2025-17-1-17-26

22.08, 06–19.09.2018, 16.05, 10–19.09.2019, 10.06.2024, M. Maslov, L. Fedina; Komarovka River valley (Komarovo-Zapovednoye, old village) (43.64288°N, 132.34430°E), 8♂, 20♀, 1♂, 1♀ (in copula), 5 instar V nymphs, 1 instar IV nymph, 1 instar III nymph, border of forest road; overgrowing glade, on *Agrimonia striata*, *Cirsium pendulum*, *C. setosum* (Willd.) Bieb., *Rubus crataegifolius*, 18.09.2015, 26.08.2016, 16–27.06; 20.09.2017, 10.06.2024, M. Maslov, L. Fedina; Pravaya Komarovka River (Mironov spring) (43.64560°N, 132.44133°E), 5♀♀, on *Rubus crataegifolius*, 26.07.2015, 14.05.2017, 10.06.2024, M. Maslov.

Shkotovsky District, Ussuriysky State Nature Reserve, Anikin ranger station (43.36371°N, 132.30333°E) 18♂♂, 15♀♀, 7 instar V nymphs, mowed gramineous/mixed forbs glade near inhabited cabin, on *Rubus caesius* L., 27.08.2020, 16–27.06.2022, 10–26.06.2024, M. Maslov; Peishula ranger station (43.63574°N, 132.54565°E), 6♂♂, 8♀♀, 8 instar V nymphs, wormwood/gramineous/mixed forbs glade, on *Agrimonia striata*, *Cirsium setosum*, and *Synurus deltoides* (Ait.) Nakai, 24.08.2016, 19.09.2017, 20.06.2018, 26.08.2019, 10.06.2024, M. Maslov, L. Fedina.

Results and discussion

Molipteryx fuliginosa was first recorded from the Reserve and the adjacent territory in 2015 (Markova et al. 2016a). Since then, this leaf-footed bug has become a common species in the insect fauna of the Reserve, with moderate/mass occupancy observed at localities 1, 2, 4, 5, 7, and 8 (Fig. 1). Here, overwintered adults, mating pairs, and nymphs of various instar stages were consistently observed throughout the growing season. At localities 3 and 6, occupancy was classified as moderate, with the presence of adults attributed to their potential migration from neighboring areas and the availability of host plants. However, these areas were relatively small and lacked open glades. Regions between localities 5–6 and 6–7 (Fig. 1), which were not occupied by bugs, did not have sites exposed to human activity, such as mowed areas around ranger stations, winter cabin construction, forest trail maintenance, and road clearing.

In Primorsky Krai, *M. fuliginosa* behaves as a polyphagous organism. We previously indicated the following plants as forage for this

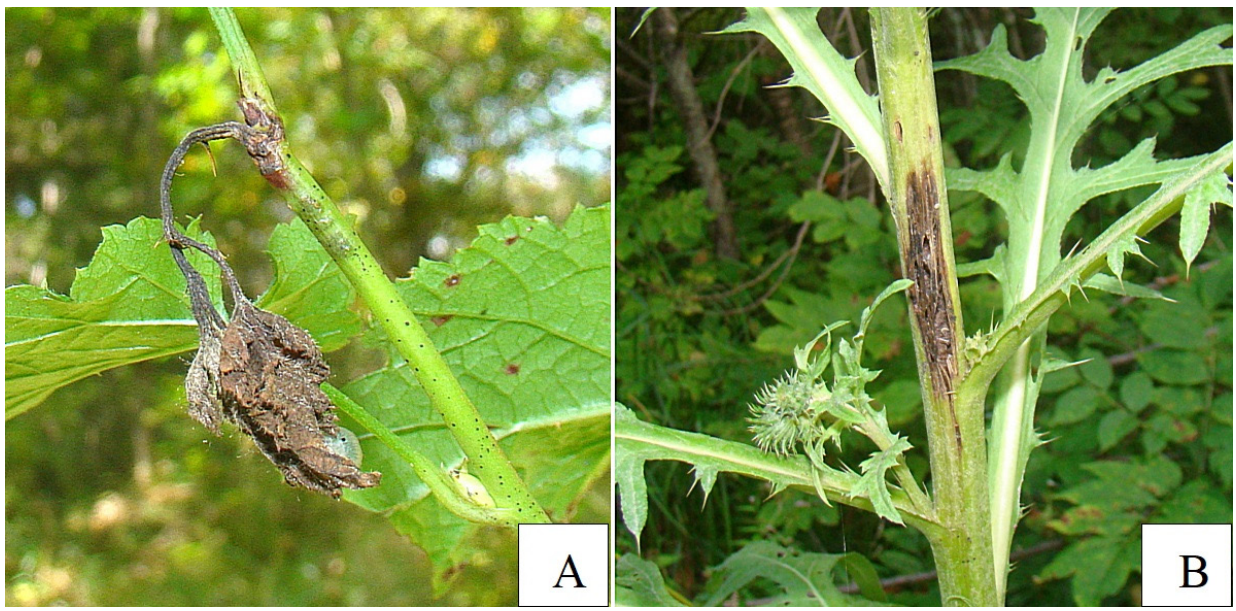

Fig. 4. Damage to host plants of *Molipteryx fuliginosa* in the Ussuriysky Reserve: *A* — drying parts of the stem, petioles, and leaf blades of *Rubus crataegifolius*; *B* — necrotic spots on the stem of *Cirsium setosum* (photo by M. Maslov)

Рис. 4. Повреждения кормовых растений *Molipteryx fuliginosa* в Уссурийском заповеднике: *A* — усыхание участков стебля, черешков и листовых пластин *Rubus crataegifolius*; *B* — некротические пятна на стебле *Cirsium setosum* (фото М. Маслова)

bug, including *Agrimonia striata*, *Rosa acicularis* Lindl., *R. davurica* Pall., *R. rugosa* Thunb., *Rubus caesius*, *R. crataegifolius*, *R. komarovii* Nakai, *R. idaeus* L., *Sanguisorba officinalis* L. (Rosaceae), *Ambrosia artemisiifolia* L., *Cirsium pendulum*, *C. setosum*, and *Prenanthes tatarinowii* Maxim. (Asteraceae) (Markova et al. 2016a; *2019;* 2021b; *Aistova* et al. 2019; Markova, Maslov 2020; 2022; 2023).

In the present study, we report, for the first time, the feeding of *M. fuliginosa* on *Angelica dahurica* (Apiaceae), *Filipendula palmata* (Rosaceae), *Adenocaulon himalaicus*, *Cirsium maackii*, *Synurus deltoides* (Asteraceae), and *Maackia amurensis* (Fabaceae) (Fig. 3).

Our observations indicate that when *M. fuliginosa* occupies plants singly and feeds for a short duration, it does not significantly affect the plant's condition. However, moderate and moderate/mass occupancy disrupt normal plant development, leading to withering and desiccation of leaf blades, inhibition of the apical growing point, and damage to stem segments. With prolonged presence and aggregation of nymphs and adults, the insect causes substantial damage to plants, supporting their full development from eggs to adults (Fig. 4).

Conclusion

Our detailed study of the ecology and distribution of *M. fuliginosa* within the V. L. Komarov Ussuri State Nature Reserve and its adjacent areas, along with an analysis of the collected data, reveals that the most heavily occupied habitats are ecotonal sites, such as forest roads and glades. This leaf-footed bug prefers mesophilic plant associations with moderate solar exposure and has not been found deep within the forest. The spread of *M. fuliginosa* coincided with a marked increase in the species' abundance in Primorsky Krai between 2015 and 2020. Its invasion likely originated from the settlements of Ussuriysky Urban Okrug (Kaymanovka and Kamenushka villages) and Shkotovsky District (Otradnoye and Mnogodobnoye villages) located along the roads traversing the Ussuriysky Reserve and the Shkotovo–Ivanovka highway. Currently, the population of this species in the Ussuriysky Nature Reserve and adjacent areas appears to be stabilizing.

Molipteryx fuliginosa in the Ussuriysky Nature Reserve, as well as throughout Primorsky Krai, exhibits a broad trophic spectrum. We have recorded the following plants as forage for this species: *Agrimonia striata*, *Rosa rugosa*, *Rubus crataegifolius*, *Filipendula palmata*, *Sanguisorba officinalis* (Rosaceae), **Angelica dahurica* (Apiaceae), **Adenocaulon himalaicus*, *Ambrosia artemisiifolia, Cirsium pendulum*, **C. maacki*, *C. setosum*, **Synurus deltoides* (Asteraceae), and **Maackia amurensis* (Fabaceae).

* — recorded for the first time.

The ecological plasticity of *M. fuliginosa* — including its invasion into forest communities, adaptation, dispersal, and expansion of its trophic spectrum in new habitats — demands continued monitoring of this leaf-footed bug in the Ussuriysky Reserve and the surrounding areas.

Acknowledgments

We gratefully acknowledge the administration of the Land of the Leopard National Park for granting us the opportunity to continue our study in the Ussuriysky Reserve. We also sincerely thank E. V. Kanyukova (Far Eastern State University, Zoological Museum) for her valuable advice. Our special thanks go to E. P. Shvetsov (Vladivostok) for his assistance in translating this paper into English.

Funding

The study was carried out as part of the state-commissioned assignment of the Ministry of Science and Higher Education of the Russian Federation (topic No. 124012200183-8).

References

Aistova, E. V., Bezborodov, V. G., Markova, T. O. et al. (2019) The formation of the consortia relations of *Molipteryx fuliginosa* (Uhler, 1860) (Hemiptera, Coreidae) with *Ambrosia artemisiifolia* in the Primorskii Krai of Russia. *Ecologica Montenegrina*, vol. 21, pp. 90–99. https://doi.org/10.6084/m9.figshare.9917987.v1 (In English)

Aukema, B., Rieger, C., Rabitsch, W. (eds.). (2013) *Catalogue of Heteroptera of the Palaearctic Region. Vol. 6. Suppl.* Amsterdam: The Netherlands Entomology Society Publ., 629 p. (In English)

Chen, J. H., Guo, S. B., Xiong, J. W. et al. (2014) Preliminary investigation of insect pests in mid-season Indica and Japonica rice fields of Xinyang Region. *Journal of Henan Agricultural Science*, vol. 43, no. 9, pp. 110–115. (In Chinese)

Dolling, W. R. (2006) *Family Coreidae Leach, 1815*. In: B. Aukema, C. Rieger (eds.). *Catalogue of the Heteroptera of the Palaearctic Region. Vol. 5. Pentatomomorpha II*. Amsterdam: The Netherlands Entomology Society Publ., pp. 43–101. (In English)

Hsiao, T. Y., Ren, S. Z., Zheng, L. Y. et al. (1977) *A handbook for the determination of the Chinese Hemiptera-Heteroptera. Vol. 1*. Beijing: Science Press, 330 p. (In Chinese)

International plant names index (IPNI). (2024) [Online]. Available at: https://www.ipni.org/ (accessed 06.12.2024). (In English)

Kanyukova, E. V. (2012) Klop-kraevik *Molipteryx fuliginosa* (Heteroptera: Coreidae) — novyj vreditel' maliny na yuge Dal'nego Vostoka Rossii [Leaf-footed bug *Molipteryx fuliginosa* (Heteroptera: Coreidae) — a new pest of raspberry in the south of the Far East of Russia]. *Amurskij zoologicheskij zhurnal — Amurian Zoological Journal*, vol. 4, no. 4, pp. 331–332. https://www.doi.org/10.33910/1999-4079-2012-4-4-331-332 (In Russian)

Kerzhner, I. M., Kanyukova, E. V. (1998) First record of *Molipteryx fuliginosa* Uhler from Russia (Heteroptera: Coreidae). *Zoosystematica Rossica*, vol. 7, no. 1, p. 84. (In English)

Luo, Z. J., Xiang, S. S., Xiong, Y. (2014) List of the insect pests of oilseed Camellia in Hubei. *Hubei Forestry Science and Technology*, vol. 1, pp. 73–74. (In English)

Markova, T. O., Maslov, M. V. (2020) Ambroziya polynnolistnaya (*Ambrosia artemisiifolia* L.) (Asteraceae) v pitanii klopov-kraevikov (Heteroptera: Coreidae) na yuge Primorskogo kraya [Ragweed (*Ambrosia artemisiifolia* L.) (Asteraceae) in the diet of leaf-footed bugs (Heteroptera: Coreidae) in the south of Primorskii krai]. *Chteniya Pamyati Alekseya Ivanovicha Kurentsova — A. I. Kurentsov's Annual Memorial Meetings*, no. 31, pp. 165–173. https://doi.org/10.25221/kurentzov.31.14 (In Russian)

Markova, T. O., Maslov, M. V. (2022) Novye svedeniya o pitanii nasekomykh (Orthoptera, Heteroptera, Coleoptera, Lepidoptera) na *Ambrosia artemisiifolia* L. (Asteraceae) na yuge Dal'nego Vostoka Rossii [New data on the insects (Orthoptera, Heteroptera, Coleoptera, Lepidoptera) feeding on *Ambrosia artemisiifolia* L. (Asteraceae) in the South of the Russian Far East. *Entomologicheskoe obozrenie — Entomological Review*, vol. 102, no. 4, pp. 446–457. https://doi.org/10.1134/S0013873822040030 (In English)

Markova, T. O., Maslov, M. V. (2023) Klopy *Coreus marginatus orientalis* Kir. i *Molipteryx Fuliginosa* Uhl. (Heteroptera, Coreidae) — vrediteli kul'turnykh Rozovykh (Rosaceae) v Primorskom krae [Leaf-footed bugs *Coreus marginatus orientalis* Kir. and *Molipteryx fuliginosa* Uhl. (Heteroptera, Coreidae) — pests of cultivated Roses (Rosaceae) in the Primorsky Territory]. *Sibirskij vestnik sel'skokhozyajstvennoj nauki — Siberian Herald of Agricultural Science*, vol. 53, no. 8, pp. 68–74. (In Russian)

Markova, T. O., Kanyukova, E. V., Maslov, M. V. (2019) Poluzhestkokrylye nasekomye (Heteroptera) s ambrozii (*Ambrosia artemisiifolia* L.) na yuge Primorskogo kraya [True bugs (Heteroptera) on *Ambrosia artemisiifolia* L. in southern areas of Primorsky Krai, Russia]. *Evraziatskij entomologicheskij zhurnal — Euroasian Entomological Journa*, vol. 18, no. 1, pp. 16–20. https://www.doi.org/10.15298/euroasentj.18.1.03 (In Russian)

Markova, T. O., Kanyukova, E. V., Maslov, M. V. (2021a) Morfometricheskie pokazateli yuvenil'noj dinamiki *Molipteryx fuliginosa* (Uhler) (Heteroptera, Coreidae) na yuge Dal'nego Vostoka Rossii [Morphometric characteristics of juvenile growth in *Molipteryx fuliginosa* (Uhler) (Heteroptera, Coreidae) from the South of the Russian Far East]. *Amurskij zoologicheskij zhurnal — Amurian Zoological Journal*, vol. 13, no. 4, pp. 471–479. https://www.doi.org/10.33910/2686-9519-2021-13-4-471-479 (In English)

Markova, T. O., Kanyukova, E. V., Maslov, M. V. (2021b) Dinamika rasseleniya klopa-kraevika *Molipteryx Fuliginosa* (Uhler) (Heteroptera, Coreidae) na Dal'nem Vostoke Rossii [Dynamics of the distribution of *Molipteryx fuliginosa* (Uhler) (Heteroptera, Coreidae) in the Russian Far East]. *Rossijskij zhurnal biologicheskikh invazij — Russian Journal of Biological Invasions*, vol. 12, no. 3, pp. 289–298. https://doi.org/10.1134/S2075111721030103 (In English)

Markova, T. O., Kanyukova, E. V., Maslov, M. V. (2022) Fenologiya klopa-kraevika *Molipteryx Fuliginosa* (Uhler) (Heteroptera, Coreidae) na yuge Dal'nego Vostoka Rossii [Phenology of *Molipteryx fuliginosa* (Uhler) (Heteroptera, Coreidae) in the South of the Russian Far East]. *Entomologicheskoe obozrenie — Entomological Review*, vol. 102, no. 1, pp. 63–70. https://doi.org/10.1134/S0013873822010055 (In English)

Markova, T. O., Maslov, M. V., Repsh, N. V. (2016a) K ekologii klopa-kraevika *Molipteryx Fuliginosa* (Heteroptera, Coreidae) v Ussurijskom rajone Primorskogo kraya [On the ecology of the leaf-footed bug *Molipteryx fuliginosa* (Uhler, 1860) (Heteroptera, Coreidae) in Ussuriisk District, Primorskii Territory]. *Chteniya Pamyati Alekseya Ivanovicha Kurentsova — A. I. Kurentsov's Annual Memorial Meetings*, no. 27, pp. 80–84. (In Russian)

Markova, T. O., Maslov, M. V., Repsh, N. V. (2018) Modifikatsii sadkov dlya issledovaniya nasekomykh [Modifikatsii sadkov dlya issledovaniya nasekomykh [Modifications of rearing cages for insect research]. *Evraziatskij entomologicheskij zhurnal — Euroasian Entomological Journal*, vol. 17, no. 5, pp. 345–348. https://doi.org/10.15298/euroasentj.17.5.06 (In Russian)

Markova, T. O., Kanyukova, E. V., Maslov, M. V., Repsh, N. V. (2017a) Preimagial'nye fazy klopa-kraevika *Molipteryx Fuliginosa* (Uhler) (Heteroptera, Coreidae) s yuga Dal'nego Vostoka Rossii [Immature stages of *Molipteryx fuliginosa* (Uhler) (Heteroptera, Coreidae) in the South of the Russian Far East]. *Entomologicheskoe obozrenie — Entomological Review*, vol. 97, no. 6, pp. 723–729. https://doi.org/10.1134/S0013873817060021 (In English)

Markova, T. O., Maslov, M. V., Kanyukova, E. V., Repsh, N. V. (2017b) Reproduktivnoe povedenie klopov *Molipteryx fuliginosa* (Uhler) (Heteroptera, Coreidae) na yuge Dal'nego Vostoka Rossii [Reproductive behavior of the bug *Molipteryx fuliginosa* Uhler (Heteroptera, Coreidae) in the South of the Russian Far East]. *Entomologicheskoe obozrenie — Entomological Review*, vol. 97, no. 9, pp. 1227–1233. https://doi.org/10.1134/S0013873817090044 (In English)

Markova, T. O., Maslov, M. V., Repsh, N. V., Ogorodnikov, E. G. (2016b) K rasprostraneniyu *Molipteryx fuliginosa* (Heteroptera: Coreidae) v Rossii [New data on distribution of *Molipteryx fuliginosa* (Heteroptera: Coreidae) in Russia]. *Dal'nevostochnyj entomolog — Far Eastern Entomologist*, no. 316, pp. 26–28. (In English)

Park, S. O. (1996) Development of the leaf-footed bug, *Molipteryx fuliginosa* (Heteroptera: Coreidae). *Korean Journal of Ecology*, vol. 19, no. 6, pp. 575–582. (In English)

Plants of the world online. (2024) [Online]. Available at: https://powo.science.kew.org/ (accessed 06.12.2024). (In English)

Tomokuni, M. (ed.). (1993) *A field guide to Japanese bugs. Terrestrial Heteropterans*. Vol. 1. Tokyo: Zenkoku Noson Kyoiku Kyoikai Publ., 382 p. (In Japanese)

Vinokurov, N. N., Kanyukova, E. V., Golub, V. B. (2010) *Katalog poluzhestkokrylykh nasekomykh (Heteroptera) Aziatskoj chasti Rossii [Catalogue of Heteroptera of Asian Part of Russia]*. Novosibirsk: Nauka Publ., 320 p. (In Russian)

Wang, H. J., Li, P., Gao, Y. D., Yuan, M. (2002) A list of insect pests of bamboos in Baishuijiang Natural Reserve. *Journal of Gansu Forestry Science and Technology*, vol. 27, no. 4, pp. 12–16. (In Chinese)

Zhabyko, E. V. (2006) Lesnaya rastitel'nost' [Forest vegetation]. In: L. N. Vasil'eva (ed.). *Flora, rastitel'nost' i mikobiota zapovednika "Ussurijskij" [Flora, vegetation and mycobiota of the Ussuriysky reserve]*. Vladivostok: Dalnauka Publ., pp. 15–29. (In Russian)

Zhang, S. M. (1985) *Economic insect fauna of China. Fasc. 31. Hemiptera (1)*. Beijing: Science Press, 242 p. (In Chinese)

For citation: Markova, T. O., Maslov, M. V., Fedina, L. A. (2025) *Molipteryx fuliginosa* (Uhler, 1860) (Heteroptera, Coreidae) in the V. L. Komarov Ussuriysky State Nature Reserve and adjacent territory (Russian Far East). *Amurian Zoological Journal*, vol. XVII, no. 1, pp. 17–26. https://www.doi.org/10.33910/2686-9519-2025-17-1-17-26

Received 22 December 2024; reviewed 28 January 2025; accepted 8 February 2025.

Для цитирования: Маркова, Т. О., Маслов, М. В., Федина, Л. А. (2025) *Molipteryx fuliginosa* (Uhler, 1860) (Heteroptera, Coreidae) на территории Уссурийского государственного природного заповедника им. В. Л. Комарова и сопредельной ему территории (Дальний Восток России). *Амурский зоологический журнал*, т. XVII, № 1, с. 17–26. https://www.doi.org/10.33910/2686-9519-2025-17-1-17-26

Получена 22 декабря 2024; прошла рецензирование 28 января 2025; принята 8 февраля 2025.