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Article

New data on the Lepidoptera fauna of Northern Kazakhstan based on materials collected in 2025

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Abstract
New data on the Lepidoptera fauna of Northern Kazakhstan are presented based on materials collected during the 2025 field season. Field surveys were conducted in several districts of the region (Tayynsha, Akkayin, Esil, Shal akyn, and Aiyrtau districts). As a result of the study, 250 species of Lepidoptera belonging to 27 families were recorded. Forty-five species are reported for the first time from the studied territory. The obtained data supplement previously published information on the Lepidoptera fauna of Northern Kazakhstan and indicate that the region remains insufficiently studied.

Key words biodiversity, checklist, distribution, new records, occurrence record.

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Introduction

The Lepidoptera fauna of Northern Kazakhstan has long remained insufficiently studied, despite the region's high biogeographical importance, situated in a transitional zone between the steppe ecosystems of Western Siberia and Central Asia. The first comprehensive summary of the Lepidoptera species composition of Northern Kazakhstan was published in 2015, when a baseline regional checklist was presented (Knyazev 2015). In subsequent years, this checklist was repeatedly clarified and expanded through systematic and faunistic investigations, resulting in the publication of the second and third parts of the annotated list of Lepidoptera of Northern Kazakhstan (Knyazev & Zuban 2016, 2019). These studies substantially improved the understanding of the regional Lepidoptera fauna and provided a foundation for further faunistic monitoring.

Additional data on species diversity and spatial distribution of Lepidoptera in Northern Kazakhstan were obtained during integrated surveys conducted in 2019–2021 and summarised in later publications (Zuban *et al.* 2022). These studies demonstrated pronounced faunistic heterogeneity within the region and indicated a high potential for the discovery of additional species. Further research, including an analysis of the late-autumn component of the Lepidoptera fauna, confirmed that even in a relatively well-studied region, the faunistic checklist remains open and sensitive to seasonal sampling limitations (Knyazev 2024; Zuban *et al.* 2024). According to the published data available by 2024, a total of 618 Lepidoptera species had been recorded from the territory of the North Kazakhstan Region (Zuban *et al.* 2024). Subsequent revision and synthesis of earlier publications and archival faunistic records, including clarification of the taxonomic status of several taxa, allowed the regional checklist to be updated to 664 species. In this context, the present study aims to further investigate the Lepidoptera fauna of Northern Kazakhstan based on new material collected throughout the entire 2025 vegetation season, with the goal of expanding the regional species list and documenting species previously unrecorded in the region.

Material and methods

The study is based on original faunistic material on Lepidoptera collected during the 2025 field season in Northern Kazakhstan. Sampling was conducted from April to September 2025 using standard entomological methods. Butterflies were collected with an entomological net, while moths were attracted using light traps. For each specimen, the collection date and exact collection site were recorded.

Identification of taxonomically difficult species was carried out by morphological examination of the genitalia after preparation of genital slides using the standard method (Robinson 1976).

Material was collected at the following localities (the geographical distribution of sampling sites is shown in Fig. 1):

1. Smirnovo – Akkayin District, Smirnovo village (54°30′58″ N, 69°23′48″ E) (Figs 2, 5, 7);
2. Yasnovka – Esil District, Yasnovka village (53°58′26″ N, 68°12′39″ E) (Fig 4);
3. Semipolka – Shal akyn District, Semipolka village (54°07′30″ N, 67°16′50″ E) (Figs 3, 6, 8);
4. Antonovka – Aiyrtau District, forest-steppe site 15 km east of Antonovka village (53°14′22.19″ N, 68°40′52.46″ E);
5. Chirikovka – Esil District, Chirikovka village (54°23′09.72″ N, 68°36′10.53″ E);
6. Poltavka – Akkayin District, forest-steppe site 8 km north of Poltavka village (54°34′55.46″ N, 69°47′14.84″ E);
7. Ivanovka – Kyzylzhar District, Ivanovka village (54°39′34.96″ N, 68°55′51.89″ E);
8. Akkuduk – Tayynsha District, 6.5 km west of Akkuduk village (53°40′30.79″ N, 70°42′22.12″ E).

Taxonomic nomenclature follows the Catalogue of Lepidoptera of Russia (Sinev 2019). Species recorded for the first time from the studied territory are marked with an asterisk (*). All examined specimens are deposited in the private collections of the authors (Petropavlovsk, Kazakhstan).

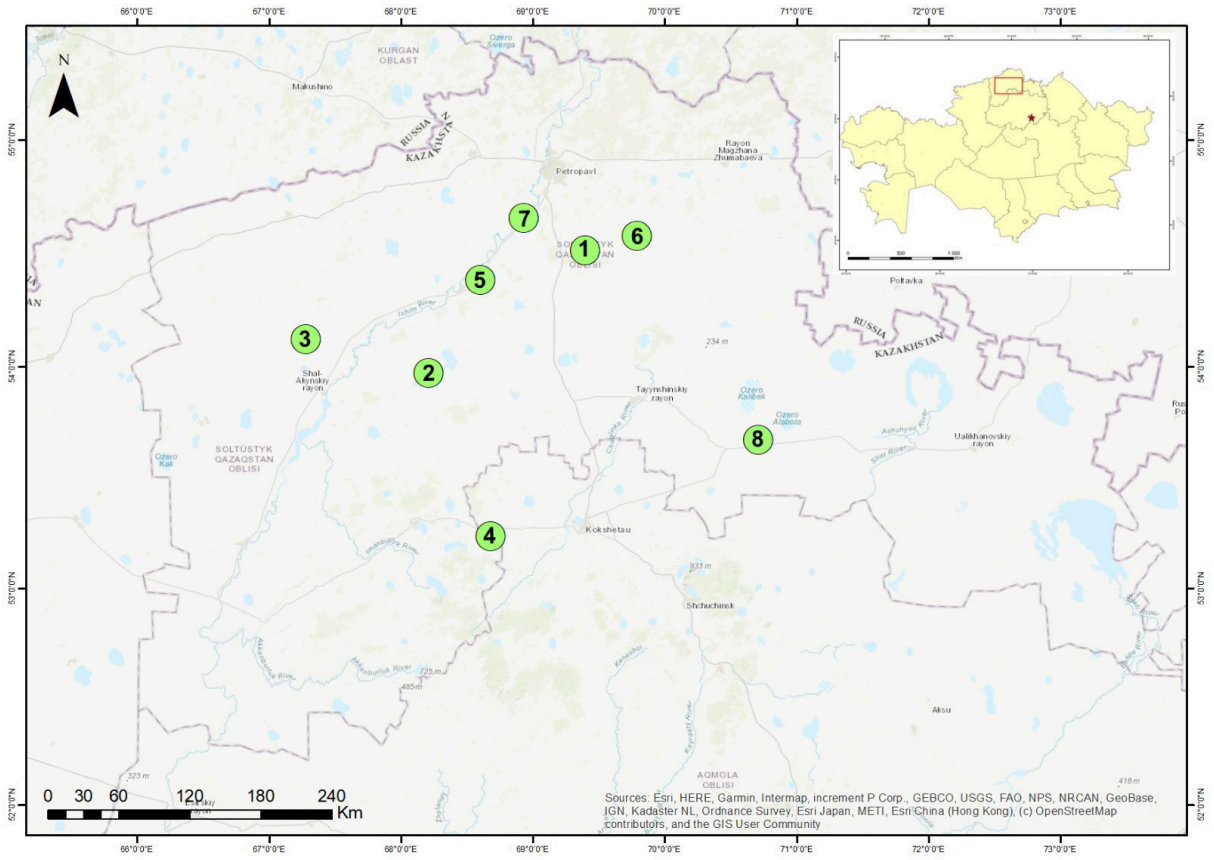


Figure 1. Sampling localities of Lepidoptera in Northern Kazakhstan in 2025.

Results

As a result of field surveys conducted in 2025 in Northern Kazakhstan, a total of 250 Lepidoptera species belonging to 27 families were recorded. Among them, 45 species are reported for the first time from the studied territory and are marked with an asterisk (*). The newly recorded species belong to various taxonomic groups, including the families Gelechiidae, Pterophoridae, Tortricidae, Pyralidae, Crambidae, Geometridae, Noctuidae, Lycaenidae, Nymphalidae, Arctiidae, Brahmaeidae, Erebidae, and others. The highest species richness was recorded in the localities of Smirnovo and Semipolka, which is likely related to the combination of forest-steppe and steppe habitats, as well as more intensive sampling effort. A complete annotated checklist of the recorded species, including collection localities, dates, and specimen counts, is provided below.

YPONOMEUTIDAE

1. *Yponomeuta evonymella* (Linnaeus, 1758) – 1 specimen, Smirnovo, 12.07.2025.

PLUTELLIDAE

2. *Plutella xylostella* (Linnaeus, 1758) – 1 specimen, Smirnovo, 12.07.2025.

DEPRESSARIIDAE

3. *Agonopterix ocellana* (Fabricius, 1775) – 1 specimen, Smirnovo, 26.04.2025.

GELECHIIDAE

4. **Acanthophila alacella* (Zeller, 1839) – 1 specimen, Smirnovo, 13.06.2025 (Fig.9).



Figure 2. Habitats of Lepidoptera species (*Acanthophila alacella, Acleris hastiana*, *Acronicta cuspis*, *Aethes rubigana, Agriphila aeneocilliella, Apomyelois bistriatella, Bactra lacteana, Capperia trichodactyla*, *Cataclysta lemnata*, *Catoptria lythargyrella, Cochylimorpha perturbatana*, *Cochylimorpha pyramidana*, *Cucullia xeranthemi*, *Cydia pomonella*, *Dichrorampha flavidorsana , Dichrorampha simpliciana, Endothenia marginana, Eupithecia biornata*, *Eupithecia ochridata*, *Gracilathetis lepigone*, *Hedya salicella*, *Laodamia faecella*, *Leucania obsoleta*, *Loxostege turbidalis*, *Macaria artesiaria*, *Notocelia cynosbatella, Pelochrista huebneriana, Pelosia obtusa*, *Phtheochroa inopiana*, *Phycitodes binaevella*, *Platytes cerussella, Pontoturania posterana, Pyla fusca, Simplicia rectalis*, *Sitochroa palealis, Thiodia citrana, Thumatha senex, Zeiraphera rufimitrana*) in the vicinity of Smirnovo village, Akkayin District, 06.06.2025 photo by B. Suindykov.

PTEROPHORIDAE

5. **Capperia trichodactyla* ([Denis & Schiffermüller], 1775) – 2 specimens, Smirnovo, 12.07.2025 (Fig. 10).

6. *Emmelina monodactyla* (Linnaeus, 1758) – 1 specimen, Smirnovo, 22.07.2025; 1 specimen, Smirnovo, 13.09.2025; 1 specimen, Smirnovo, 20.09.2025; 1 specimen, Semipolka, 27.09.2025.

TORTRICIDAE

7. **Acleris hastiana* (Linnaeus, 1758) – 1 specimen, Smirnovo, 12.07.2025.

8. **Phtheochroa inopiana* (Haworth, 1811) – 1 specimen, Smirnovo, 21.06.2025 (Fig. 12).

9. **Cochylimorpha perturbatana* (Kennel, 1900) – 1 specimen, Smirnovo, 13.06.2025; 2 specimens, Smirnovo, 10.07.2025 (Fig. 13).

10. **Cochylimorpha pyramidana* (Staudinger, 1871) – 1 specimen, Smirnovo, 13.06.2025 (Fig. 14).

11. *Agapeta hamana* (Linnaeus, 1758) – 1 specimen, Smirnovo, 10.07.2025; 1 specimen, Smirnovo, 12.07.2025.

12. **Aethes rubigana* (Treitschke, 1830) – 1 specimen, Smirnovo, 12.07.2025; 1 specimen, Smirnovo, 14.08.2025 (Fig. 15).



Figure 3. Habitat of *Nymphalis vaualbum* in Shal akyn District, vicinity of Semipolka village, 05.04.2025, photo by S. Schnell.



Figure 4. Habitat of *Hydraecia micacea* in Esil District, vicinity of Yasnovka village, 15.08.2025, photo by V. Lunev.



Figure 5. Habitat of *Apatura ilia* in the vicinity of Smirnovo village, Akkayin District, 13.06.2025, photo by B. Suindykov.



Figure 6. Habitat of *Lemonia dumi* in the vicinity of Semipolka village, Shal akyn District, 13.09.2025, photo by S. Schnell.



Figure 7. Habitat of *Aricia artaxerxes* in the vicinity of Smirnovo village, Akkayin District, 06.06.2025, photo by B. Suindykov.



Figure 8. Habitat of *Ostrinia scapulalis* in the vicinity of Semipolka village, Shal akyn District, 07.06.2025, photo by S. Schnell.

13. **Pontoturania posterana* (Zeller, 1847) – 1 specimen, Smirnovo, 13.06.2025; 5 specimens, Smirnovo, 12.07.2025; 3 specimens, Smirnovo, 14.08.2025 (Fig. 16).

14. *Pandemis heparana* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 13.06.2025; 4 specimens, Smirnovo, 21.06.2025; 1 specimen, Smirnovo, 22.07.2025.

15. *Clepsis pallidana* (Fabricius, 1776) – 2 specimens, Smirnovo, 14.08.2025; 1 specimen, Smirnovo, 20.09.2025.

16. **Endothenia marginana* (Haworth, 1811) – 1 specimen, Smirnovo, 03.07.2025.

17. Bactra furfurana (Haworth, 1811) – 2 specimens, Smirnovo, 12.07.2025; 3 specimens, Smirnovo, 22.07.2025 (Fig. 17).

18. **Bactra lacteana* Caradja, 1917 – 3 specimens, Smirnovo, 12.07.2025; 3 specimens, Smirnovo, 14.08.2025 (Fig. 18).

19. *Bactra robustana* (Christoph, 1872) – 1 specimen, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 21.06.2025.

20. *Apotomis betuletana* (Haworth, 1811) – 1 specimen, Smirnovo, 04.08.2025.

21. **Hedya salicella* (Linnaeus, 1758) – 1 specimen, Smirnovo, 13.06.2025 (Fig.19).

22. **Zeiraphera rufimitrana* (Herrich-Schäffer, 1851) – 1 specimen, Smirnovo, 04.08.2025 (Fig. 20).

23. *Rhyacionia pinicolana* (Doubleday, 1849) – 1 specimen, Smirnovo, 13.06.2025.

24. **Thiodia citrana* (Hübner, 1799) – 1 specimen, Smirnovo, 03.07.2025 (Fig.21).

25. **Notocelia cynosbatella* (Linnaeus, 1758) – 1 specimen, Smirnovo, 31.05.2025 (Fig. 22).

26. *Epiblema foenella* (Linnaeus, 1758) – 1 specimen, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 22.07.2025.

27. *Pelochrista arabescana* (Eversmann, 1844) – 1 specimen, Smirnovo, 22.07.2025.

28. **Pelochrista huebneriana* (Lienig & Zeller, 1846) – 1 specimen, Smirnovo, 22.07.2025 (Fig. 23).

29. **Dichrorampha flavidorsana* (Knaggs, 1867) – 1 specimen, Smirnovo, 12.07.2025 Fig. 24).

30. **Dichrorampha simpliciana* (Haworth, 1811) – 1 specimen, Smirnovo, 22.07.2025 Fig. 25).

31. **Cydia pomonella* (Linnaeus, 1758) – 1 specimen, Smirnovo, 31.05.2025; 3 specimens, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 21.06.2025; 4 specimens, Smirnovo, 03.07.2025; 1 specimen, Smirnovo, 12.07.2025; 1 specimen, Smirnovo, 14.08.2025 (Fig. 26).

COSSIDAE

32. *Cossus cossus* (Linnaeus, 1758) – 1 specimen, Smirnovo, 31.05.2025.

33. *Phragmataecia castaneae* (Hübner, 1790) – 4 specimens, Smirnovo, 31.05.2025.

PYRALIDAE

34. **Synaphe bombycalis* ([Denis & Schiffermüller], 1775) – 1 specimen, Akkuduk, 04.06.2025 (Fig. 11).

35. *Hypsopygia costalis* (Fabricius, 1775) – 1 specimen, Semipolka, 07.06.2025.

36. *Pyralis farinalis* (Linnaeus, 1758) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 12.07.2025.

37. **Pyla fusca* (Haworth, 1811) – 1 specimen, Smirnovo, 04.08.2025 (Fig. 27).

38. **Laodamia faecella* (Zeller, 1839) – 3 specimens, Smirnovo, 13.06.2025; 2 specimens, Smirnovo, 21.06.2025; 1 specimen, Smirnovo, 03.07.2025 (Fig. 28).

39. **Apomyelois bistriatella* (Hulst, 1887) – 1 specimen, Smirnovo, 13.06.2025 (Fig. 29).

40. **Phycitodes binaevella* (Hübner, 1813) – 3 specimens, Smirnovo, 13.06.2025; 2 specimens, Smirnovo, 03.07.2025; 1 specimen, Smirnovo, 14.08.2025 (Fig. 30).

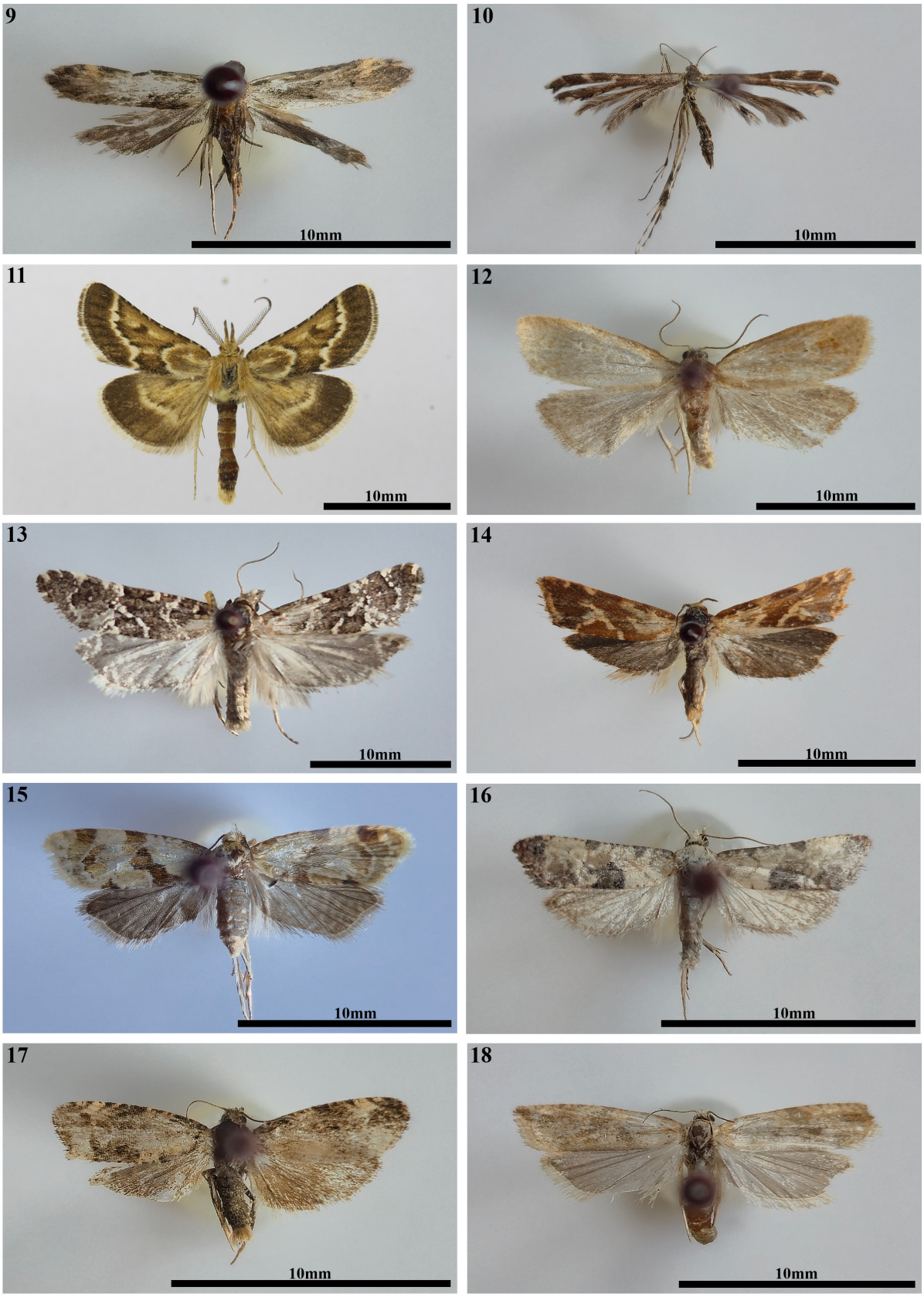
CRAMBIDAE

41. *Chrysoteuchia culmella* (Linnaeus, 1758) – 2 specimens, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 03.07.2025.

42. **Agriphila aeneocilliella* (Eversmann, 1844) – 3 specimens, Smirnovo, 14.08.2025 (Fig. 31).

43. *Agriphila tristella* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 14.08.2025.

44. **Catoptria lythargyrella* (Hübner, 1796) – 2 specimens, Smirnovo, 14.08.2025; 1 specimen, Smirnovo, 06.09.2025 (Fig. 32).



Figures 9–18. Lepidoptera new to the North Kazakhstan Region: 9 – *Acanthophila alacella*; 10 – *Capperia trichodactyla*; 11 – *Synaphe bombycalis*; 12 – *Phtheochroa inopiana*; 13 – *Cochylimorpha perturbatana*; 14 – *Cochylimorpha pyramidana*; 15 – *Aethes rubigana*; 16 – *Pontoturania posterana*; 17 – *Endothenia marginana*; 18 – *Bactra lacteana*.



Figures 19–28. Lepidoptera new to the North Kazakhstan Region: 19 – *Hedya salicella*; 20 –*Zeiraphera rufimitrana*; 21 – *Thiodia citrana*; 22 – *Notocelia cynosbatella*; 23 – *Pelochrista huebneriana*; 24 – *Dichrorampha flavidorsana*; 25 – *Dichrorampha simpliciana*; 26 – *Cydia pomonella*; 27 – *Pyla fusca*; 28 – *Laodamia faecella.*

45. *Pediasia luteella* ([Denis et Schiffermüller], 1775) – 1 specimen, Smirnovo, 21.06.2025.

46. **Platytes cerussella* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 06.06.2025 (Fig. 33).

47. *Schoenobius gigantellus* ([Denis et Schiffermüller], 1775) – 1 specimen, Smirnovo, 31.05.2025; 2 specimens, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 21.06.2025.

48. *Elophila nymphaeata* (Linnaeus, 1758) – 1 specimen, Smirnovo, 31.05.2025; 1 specimen, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 13.06.2025; 2 specimens, Smirnovo, 21.06.2025; 1 specimen, Smirnovo, 12.07.2025; 1 specimen, Smirnovo, 22.07.2025.

49. **Cataclysta lemnata* (Linnaeus, 1758) – 3 specimens, Smirnovo, 12.07.2025; 1 specimen, Smirnovo, 22.07.2025; 1 specimen, Semipolka, 07.08.2025 (Fig. 34).

50. *Parapoynx stratiotata* (Linnaeus, 1758) – 2 specimens, Smirnovo, 22.07.2025; 1 specimen, Semipolka, 07.08.2025; 1 specimen, Smirnovo, 14.08.2025.

51. *Evergestis frumentalis* (Linnaeus, 1761) – 1 specimen, Smirnovo, 06.06.2025.

52. *Anania (Eurrhypara) hortulata* (Linnaeus, 1758) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 13.06.2025.

53. *Ecpyrrhorrhoe rubiginalis* (Hübner, 1796) – 3 specimens, Smirnovo, 12.07.2025; 1 specimen, Smirnovo, 14.08.2025.

54. *Loxostege sticticalis* (Linnaeus, 1761) – 2 specimens, Smirnovo, 31.05.2025; 2 specimens, Smirnovo, 06.06.2025.

55. **Loxostege turbidalis* (Treitschke, 1829) – 2 specimens, Smirnovo, 06.06.2025 (Fig. 35).

56. *Ostrinia nubilalis* (Hübner, 1796) – 2 specimens, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 13.06.2025.

57. **Ostrinia scapulalis* (Walker, 1859) – 3 specimens, Semipolka, 07.06.2025 (Fig. 36).

58. **Sitochroa palealis* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 01.07.2025 (Fig. 37).

59. *Patania ruralis* (Scopoli, 1763) – 1 specimen, Semipolka, 07.06.2025; 2 specimens, Smirnovo, 21.06.2025; 3 specimens, Semipolka, 07.08.2025.

60. *Mecyna flavalis* ([Denis et Schiffermüller], 1775) – 3 specimens, Smirnovo, 03.07.2025; 2 specimens, Smirnovo, 10.07.2025; 1 specimen, Smirnovo, 17.07.2025; 1 specimen, Smirnovo, 26.07.2025; 1 specimen, Yasnovka, 11.08.2025.

HESPERIIDAE

61. *Muschampia cribrellum* (Eversmann, 1841) – 1 specimen, Smirnovo, 03.07.2025.

62. *Thymelicus lineola* (Ochsenheimer, 1808) – 1 specimen, Smirnovo, 03.07.2025; 3 specimens, Smirnovo, 10.07.2025.

63. *Ochlodes sylvanus* (Esper, 1777) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 13.06.2025.

PAPILIONIDAE

64. *Papilio machaon* (Linnaeus, 1758) – 4 specimens, Smirnovo, 10.07.2025; 2 specimens, Semipolka, 12.07.2025; 1 specimen, Semipolka, 14.07.2025.

PIERIDAE

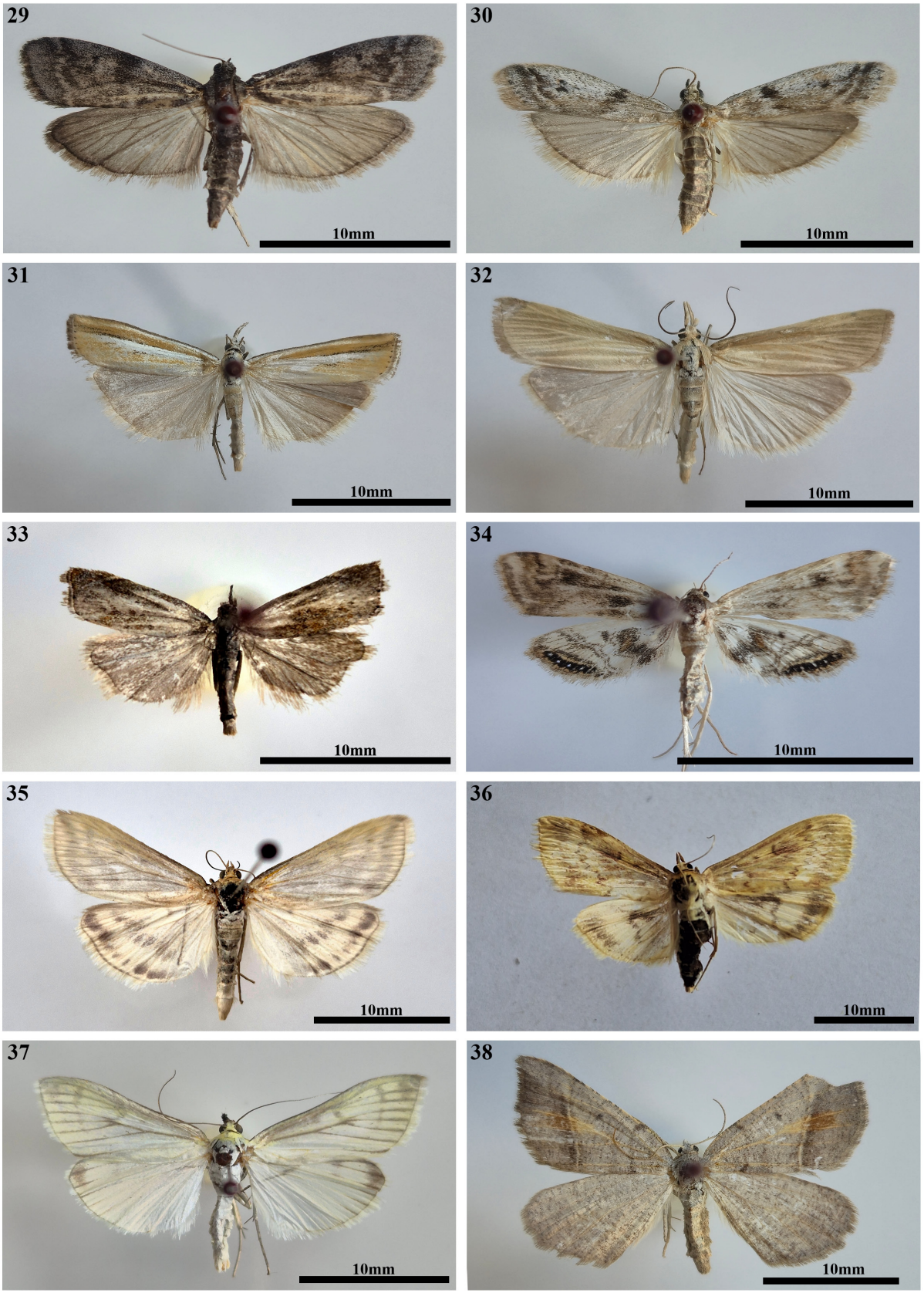
65. *Leptidea sinapis* (Linnaeus, 1758) – 2 specimens, Smirnovo, 03.07.2025; 2 specimens, Smirnovo, 10.07.2025; 2 specimens, Smirnovo, 17.07.2025.

66. *Aporia crataegi* (Linnaeus, 1758) – 2 specimens, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 06.06.2025.

67. *Pieris brassicae* (Linnaeus, 1758) – 1 specimen, Semipolka, 07.06.2025.

68. *Pieris napi* (Linnaeus, 1758) – 1 specimen, Smirnovo, 26.04.2025; 7 specimens, Semipolka, 05.07.2025; 9 specimens, Semipolka, 08.08.2025; 1 specimen, Smirnovo, 17.07.2025; 1 specimen, Yasnovka, 25.07.2025; 1 specimen, Smirnovo, 26.07.2025; 7 specimens, Semipolka, 04.08.2025; 1 specimen, Smirnovo, 14.08.2025.

69. *Pieris rapae* (Linnaeus, 1758) – 2 specimens, Semipolka, 05.07.2025; 2 specimens, Semipolka, 09.08.2025; 1 specimen, Semipolka, 13.09.2025.



Figures 29–38. Lepidoptera new to the North Kazakhstan Region: 29 – *Apomyelois bistriatella*; 30 – *Phycitodes binaevella*; 31 – *Agriphila aeneocilliella*; 32 – *Catoptria lythargyrella*; 33 – *Platytes cerussella*; 34 – *Cataclysta lemnata*; 35 – *Loxostege turbidalis*; 36 – *Ostrinia scapulalis*; 37 – *Sitochroa palealis*; 38 – *Macaria artesiaria.*

70. *Pontia edusa* (Fabricius, 1777) – 1 specimen, Smirnovo, 26.04.2025; 1 specimen, Semipolka, 14.07.2025; 1 specimen, Smirnovo, 17.07.2025; 1 specimen, Yasnovka, 25.07.2025; 1 specimen, Smirnovo, 05.08.2025; 2 specimens, Smirnovo, 14.08.2025; 9 specimens, Semipolka, 27.09.2025.

COLIADINAE

71. *Colias hyale* (Linnaeus, 1758) – 1 specimen, Semipolka, 07.06.2025; 1 specimen, Yasnovka, 11.07.2025; 7 specimens, Semipolka, 08.08.2025; 4 specimens, Semipolka, 14.07.2025; 2 specimens, Semipolka, 27.09.2025; 2 specimens, Smirnovo, 17.07.2025; 2 specimens, Smirnovo, 26.07.2025; 2 specimens, Smirnovo, 05.08.2025; 1 specimen, Smirnovo, 06.09.2025.

LYCAENIDAE

72. *Lycaena phlaeas* (Linnaeus, 1761) – 1 specimen, Semipolka, 04.08.2025.

73. *Lycaena dispar* (Haworth, 1802) – 1 specimen, Smirnovo, 13.06.2025.

74. *Everes argiades* (Pallas, 1771) – 1 specimen, Yasnovka, 11.07.2025; 1 specimen, Semipolka, 12.07.2025; 1 specimen, Smirnovo, 14.08.2025.

75. *Celastrina argiolus* (Linnaeus, 1758) – 1 specimen, Smirnovo, 26.04.2025.

76. *Pseudophilotes vicrama* (Moore, 1865) – 1 specimen, Smirnovo, 31.05.2025.

77. *Phengaris (Maculinea) arion* (Linnaeus, 1758) – 1 specimen, Smirnovo, 10.07.2025.

78. *Plebeius argus* (Linnaeus, 1758) – 3 specimens, Smirnovo, 06.06.2025; 3 specimens, Smirnovo, 21.06.2025; 2 specimens, Smirnovo, 10.07.2025; 1 specimen, Yasnovka, 11.07.2025, 1 specimen, Semipolka, 14.07.2025; 2 specimens, Semipolka, 08.08.2025.

79. *Plebejus argyrognomon* (Bergsträsser, 1779) – 2 specimens, Smirnovo, 31.05.2025; 1 specimen, Semipolka, 07.06.2025.

80. *Plebeius idas* (Linnaeus, 1761) – 1 specimen, Smirnovo, 05.08.2025; 1 specimen, Smirnovo, 14.08.2025.

81. **Aricia artaxerxes* (Fabricius, 1793) – 1 specimen, Smirnovo, 06.06.2025 (Figs 39–39.1).

82. *Eumedonia eumedon* (Esper, 1780) – 1 specimen, Semipolka, 07.06.2025.

83. *Polyommatus amandus* (Schneider, 1792) – 1 specimen, Smirnovo, 06.06.2025.

84. *Polyommatus icarus* (Rottemburg, 1775) – 1 specimen, Smirnovo, 21.06.2025; 3 specimens, Smirnovo, 26.07.2025; 2 specimens, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 05.08.2025; 6 specimens, Semipolka, 08.08.2025; 5 specimens, Smirnovo, 06.09.2025; 1 specimen, Yasnovka, 11.07.2025; 1 specimen, Yasnovka, 20.09.2025, 2 specimens, Semipolka, 27.09.2025.

NYMPHALIDAE

85. **Apatura ilia* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 13.06.2025; 2 specimens, Poltavka, 13.06.2025; 4 specimens, Ivanovka, 18.06.2025 (Fig.40).

86. *Nymphalis antiopa* (Linnaeus, 1758) – 1 specimen, Smirnovo, 26.04.2025; 1 specimen, Smirnovo, 26.07.2025.

87. **Nymphalis vaualbum* ([Denis & Schiffermüller], 1775) – 1 specimen, Semipolka, 05.04.2025 (Figs 41 – 41.1).

88. *Nymphalis xanthomelas* (Esper, 1781) – 1 specimen, Semipolka, 05.04.2025; 1 specimen, Smirnovo, 06.04.2025.

89. *Aglais urticae* (Linnaeus, 1758) – 4 specimens, Semipolka, 07.06.2025; 1 specimen, Yasnovka, 25.07.2025; 3 specimens, Semipolka, 08.08.2025.

90. *Polygonia c-album* (Linnaeus, 1758) – 1 specimen, Semipolka, 05.04.2025; 1 specimen, Yasnovka, 17.10.2025.

91. *Vanessa atalanta* (Linnaeus, 1758) – 1 specimen, Semipolka, 05.07.2025.

92. *Vanessa cardui* (Linnaeus, 1758) – 1 specimen, Semipolka, 07.06.2025.

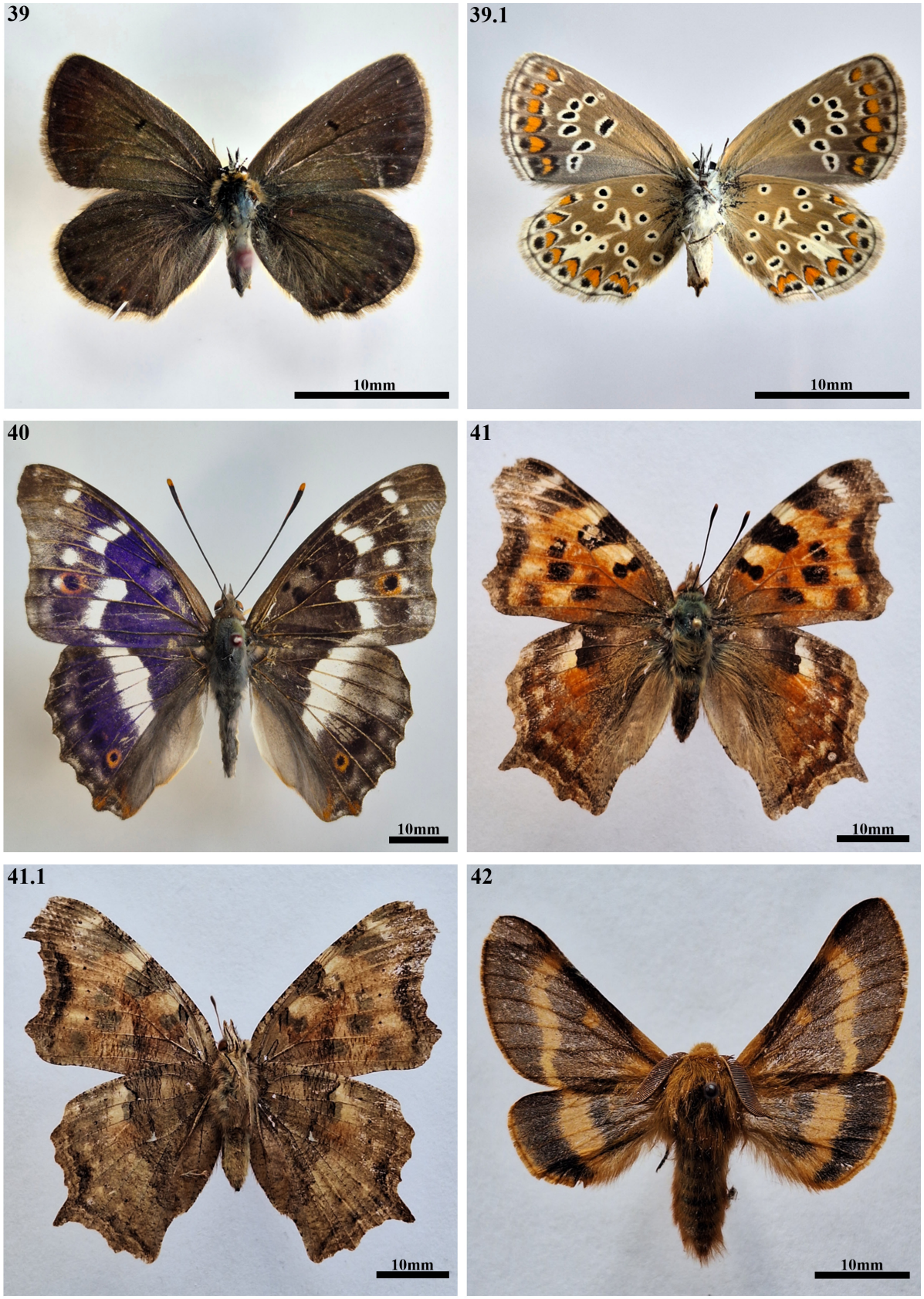
93. *Melitaea phoebe* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 21.06.2025.

94. *Melitaea cinxia* (Linnaeus, 1758) – 2 specimens, Smirnovo, 06.06.2025.

95. *Brenthis ino* (Rottemburg, 1775) – 4 specimens, Smirnovo, 13.06.2025; 3 specimens, Smirnovo, 21.06.2025.

96. *Argynnis paphia* (Linnaeus, 1758) – 1 specimen, Semipolka, 09.08.2025.

97. *Argynnis adippe* ([Denis & Schiffermüller], 1775) – 2 specimens, Smirnovo, 21.06.2025.



Figures 39–42. Lepidoptera new to the North Kazakhstan Region: 39 – *Aricia artaxerxes*, upperside; 39.1 – *A. artaxerxes*, underside; 40 – *Apatura ilia*; 41 – *Nymphalis vaualbum*, upperside; 41.1 – *Nymphalis vaualbum*, underside; 42 – *Lemonia dumi.*

98. *Argynnis niobe* (Linnaeus, 1758) – 1 specimen, Smirnovo, 10.07.2025; 1 specimen, Semipolka, 12.07.2025; 2 specimens, Smirnovo, 17.07.2025; 1 specimen, Smirnovo, 26.07.2025; 1 specimen, Semipolka, 04.08.2025; 1 specimen, Smirnovo, 05.08.2025.

99. *Argynnis aglaja* (Linnaeus, 1758) – 1 specimen, Smirnovo, 10.07.2025; 1 specimen, Yasnovka, 11.07.2025; 1 specimen, Smirnovo, 17.07.2025.

100. *Melanargia russiae* (Esper, 1783) – 4 specimens, Smirnovo, 21.06.2025; 2 specimens, Smirnovo, 01.07.2025; 2 specimens, Smirnovo, 10.07.2025; 1 specimen, Smirnovo, 17.07.2025.

101. *Coenonympha glycerion* (Borkhausen, 1788) – 4 specimens, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 21.06.2025; 2 specimens, Smirnovo, 01.07.2025; 1 specimen, Yasnovka, 25.07.2025.

102. *Coenonympha pamphilus* (Linnaeus, 1758) – 3 specimens, Smirnovo, 22.05.2025; 7 specimens, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 06.06.2025; 4 specimens, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 21.06.2025; 2 specimens, Smirnovo, 26.07.2025; 2 specimens, Smirnovo, 14.08.2025; 1 specimen, Smirnovo, 06.09.2025; 10 specimens, Semipolka, 09.08.2025; 1 specimen, Yasnovka, 20.10.2025.

103. *Hyponephele lupina* (Costa, 1836) – 1 specimen, Semipolka, 13.09.2025.

104. *Hyponephele lycaon* (Rottemburg, 1775) – 7 specimens, Smirnovo, 01.07.2025; 4 specimens, Smirnovo, 03.07.2025; 6 specimens, Smirnovo, 10.07.2025; 1 specimen, Yasnovka, 11.07.2025; 2 specimens, Smirnovo, 17.07.2025; 3 specimens, Semipolka, 04.08.2025; 3 specimens, Semipolka, 09.08.2025.

105. *Davidina tarpeia* (Pallas, 1771) – 1 specimen, Smirnovo, 31.05.2025; 2 specimens, Antonovka, 12.06.2025.

106. *Minois dryas* (Scopoli, 1763) – 2 specimens, Smirnovo, 01.07.2025; 3 specimens, Smirnovo, 03.07.2025; 4 specimens, Smirnovo, 10.07.2025; 1 specimen, Yasnovka, 11.07.2025; 2 specimens, Semipolka, 12.07.2025; 1 specimen, Smirnovo, 17.07.2025; 2 specimens, Smirnovo, 26.07.2025; 1 specimen, Semipolka, 03.08.2025.

107. *Arethusana arethusa* ([Denis & Schiffermüller], 1775) – 1 specimen, Semipolka, 08.08.2025.

108. *Hipparchia autonoe* (Esper, 1783) – 1 specimen, Yasnovka, 11.07.2025; 1 specimen, Smirnovo, 17.07.2025.

DREPANIDAE

109. *Achlya flavicornis* (Linnaeus, 1758) – 3 specimens, Yasnovka, 30.05.2025.

GEOMETRIDAE

110. *Archiearis parthenias* (Linnaeus, 1761) – 2 specimens, Semipolka, 05.04.2025; 3 specimens, Smirnovo, 06.04.2025.

111. *Cabera leptographa* (Wehrli, 1936) – 1 specimen, Smirnovo, 03.07.2025.

112. *Cabera pusaria* (Linnaeus, 1758) – 1 specimen, Smirnovo, 01.07.2025.

113. *Ennomos autumnaria* (Werneburg, 1859) – 1 specimen, Yasnovka, 15.08.2025.

114. *Angerona prunaria* (Linnaeus, 1758) – 4 specimens, Semipolka, 07.06.2025.

115. *Siona lineata* (Scopoli, 1763) – 1 specimen, Smirnovo, 22.05.2025; 2 specimens, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 06.06.2025.

116. *Biston betularia* (Linnaeus, 1758) – 1 specimen, Smirnovo, 13.06.2025.

117. *Biston strataria* (Hufnagel, 1767) – 1 specimen, Yasnovka, 30.05.2025.

118. *Lycia hirtaria* (Clerck, 1759) – 1 specimen, Smirnovo, 26.04.2025.

119. *Hypomecis roboraria* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 13.06.2025; 1 specimen, Semipolka, 07.06.2025.

120. *Ematurga atomaria* (Linnaeus, 1758) – 3 specimens, Smirnovo, 22.05.2025; 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 10.07.2025; 1 specimen, Semipolka, 14.07.2025.

121. *Lomaspilis marginata* (Linnaeus, 1758) – 1 specimen, Smirnovo, 06.06.2025.

122. *Isturgia murinaria* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 26.04.2025; 1 specimen, Antonovka, 21.05.2025; 1 specimen, Smirnovo, 01.07.2025; 1 specimen, Yasnovka, 15.08.2025.

123. *Narraga tessularia* (Metzner, 1845) – 1 specimen, Smirnovo, 31.05.2025.

124. **Macaria artesiaria* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 12.07.2025 (Fig. 38).

125. *Chiasmia clathrata* (Linnaeus, 1758) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 10.07.2025.

126. *Chlorissa viridata* (Linnaeus, 1758) – 1 specimen, Smirnovo, 31.05.2025; 2 specimens, Semipolka, 07.06.2025.

127. *Lithostege farinata* (Hufnagel, 1767) – 1 specimen, Smirnovo, 13.06.2025.

128. *Scotopteryx chenopodiata* (Linnaeus, 1758) – 1 specimen, Smirnovo, 17.07.2025.

129. *Phibalapteryx virgata* (Hufnagel, 1767) – 1 specimen, Smirnovo, 14.08.2025.

130. *Xanthorhoe fluctuata* (Linnaeus, 1758) – 1 specimen, Smirnovo, 14.08.2025.

131. *Costaconvexa polygrammata* (Borkhausen, 1794) – 1 specimen, Smirnovo, 26.04.2025; 1 specimen, Semipolka, 07.06.2025; 3 specimens, Smirnovo, 14.08.2025.

132. *Epirrhoe alternata* (Müller, 1764) – 1 specimen, Smirnovo, 10.07.2025.

133. *Pelurga comitata* (Linnaeus, 1758) – 1 specimen, Smirnovo, 12.07.2025; 1 specimen, Semipolka, 07.08.2025.

134. **Eupithecia biornata* (Christoph, 1867) – 1 specimen, Smirnovo, 13.06.2025 (Fig. 43).

135. *Eupithecia linariata* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 04.08.2025.

136. **Eupithecia ochridata* (Schütze & Pinker, 1968) – 1 specimen, Smirnovo, 14.08.2025 (Fig. 44).

137. *Idaea aversata* (Linnaeus, 1758) – 1 specimen, Semipolka, 07.06.2025.

138. *Scopula immorata* (Linnaeus, 1758) – 2 specimens, Smirnovo, 06.06.2025.

139. *Scopula ornata* (Scopoli, 1763) – 1 specimen, Antonovka, 21.05.2025; 1 specimen, Yasnovka, 15.08.2025.

140. *Scopula rubiginata* (Hufnagel, 1767) – 1 specimen, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 22.07.2025.

141. *Timandra comae* (Schmidt, 1931) – 1 specimen, Semipolka, 09.08.2025; 1 specimen, Yasnovka, 20.09.2025.

142. *Lythria purpuraria* (Linnaeus, 1758) – 1 specimen, Smirnovo, 17.07.2025; 1 specimen, Smirnovo, 05.08.2025; 4 specimens, Semipolka, 08.08.2025.

143. *Casilda antophillaria* (Hübner, 1813) – 1 specimen, Smirnovo, 22.07.2025.

LASIOCAMPIDAE

144. *Malacosoma castrense* (Linnaeus, 1758) – 2 specimens, Smirnovo, 21.06.2025.

145. *Eriogaster lanestris* (Linnaeus, 1758) – 1 specimen, Yasnovka, 17.04.2025.

146. *Euthrix potatoria* (Linnaeus, 1758) – 1 specimen, Smirnovo, 03.07.2025.

147. *Gastropacha quercifolia* (Linnaeus, 1758) – 1 specimen, Smirnovo, 03.07.2025.

148. *Phyllodesma tremulifolia* (Hübner, 1810) – 1 specimen, Antonovka, 21.05.2025.

BRAHMAEIDAE

149. **Lemonia dumi* (Linnaeus, 1761) – 1 specimen, Semipolka, 13.09.2025 (Fig. 42).

SATURNIIDAE

150. *Aglia tau* (Linnaeus, 1758) – 6 specimens, Chirikovka, 15.05.2025.

SPHINGIDAE

151. *Laothoe populi* (Linnaeus, 1758) – 1 specimen, Smirnovo, 21.06.2025.

152. *Mimas tiliae* (Linnaeus, 1758) – 1 specimen, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 06.06.2025; 4 specimens, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 21.06.2025.

153. *Hyles gallii* (Rottemburg, 1775) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Yasnovka, 15.08.2025.

154. *Deilephila elpenor* (Linnaeus, 1758) – 1 specimen, Smirnovo, 06.06.2025.

155. *Choerocampa porcellus* (Linnaeus, 1758) – 3 specimens, Antonovka, 21.05.2025; 1 specimen, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 13.06.2025.

NOTODONTIDAE

156. *Notodonta dromedarius* (Linnaeus, 1758) – 1 specimen, Smirnovo, 13.06.2025.

157. *Notodonta tritophus* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 03.07.2025.

158. *Notodonta ziczac* (Linnaeus, 1758) – 1 specimen, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Yasnovka, 15.08.2025.

159. *Clostera albosigma* (Fitch, 1856) – 1 specimen, Smirnovo, 04.08.2025.

160. *Clostera pigra* (Hufnagel, 1766) – 1 specimen, Smirnovo, 26.04.2025.

LYMANTRIIDAE

161. *Lymantria dispar* (Linnaeus, 1758) – 21 specimens, Smirnovo, 01.07.2025; 60 specimens, Smirnovo, 03.07.2025; 4 specimens, Semipolka, 12.07.2025; 1 specimen, Yasnovka, 15.08.2025.

162. *Sphrageidus similis* (Fuessly, 1775) – 1 specimen, Semipolka, 07.06.2025.

ARCTIIDAE

163. **Pelosia obtusa* (Herrich-Schäffer, 1847) – 1 specimen, Smirnovo, 03.07.2025 (Fig. 45).

164. **Thumatha senex* (Hübner, 1808) – 1 specimen, Smirnovo, 03.07.2025 (Fig.46).

165. *Miltochrista miniata* (Forster, 1771) – 1 specimen, Smirnovo, 12.07.2025.

166. *Arctia caja* (Linnaeus, 1758) – 1 specimen, Smirnovo, 12.07.2025; 1 specimen, Yasnovka, 15.08.2025.

167. *Arctia flavia* (Fuessly, 1779) – 1 specimen, Smirnovo, 03.07.2025.

168. *Epicallia villica* (Linnaeus, 1758) – 1 specimen, Smirnovo, 31.05.2025; 1 specimen, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 13.06.2025.

169. *Spilosoma lubricipedum* (Linnaeus, 1758) – 2 specimens, Semipolka, 07.06.2025.

170. *Spilarctia lutea* (Hufnagel, 1766) – 5 specimens, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 13.06.2025.

EREBIDAE

171. **Simplicia rectalis* (Eversmann, 1842) – 1 specimen, Smirnovo, 04.08.2025; 1 specimen, Smirnovo, 14.08.2025(Fig.47).

172. *Polypogon tentacularia* (Linnaeus, 1758) – 1 specimen, Smirnovo, 03.07.2025.

173. *Hypena rostralis* (Linnaeus, 1758) – 1 specimen, Smirnovo, 13.09.2025.

174. *Catocala nupta* (Linnaeus, 1767) – 1 specimen, Yasnovka, 20.09.2025.

175. *Euclidia glyphica* (Linnaeus, 1758) – 1 specimen, Smirnovo, 17.07.2025; 1 specimen, Smirnovo, 05.08.2025.

176. *Callistege fortalitium* (Tauscher, 1809) – 1 specimen, Smirnovo, 21.06.2025.

NOLIDAE

177. *Earias clorana* (Linnaeus, 1761) – 1 specimen, Smirnovo, 31.05.2025.

NOCTUIDAE

178. *Abrostola tripartita* (Hufnagel, 1766) – 1 specimen, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 04.08.2025.

179. *Macdunnoughia confusa* (Stephens, 1850) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 04.08.2025; 2 specimens, Semipolka, 27.09.2025.

180. *Diachrysia stenochrysis* (Warren, 1913) – 1 specimen, Antonovka, 21.05.2025; 8 specimens, Semipolka, 07.06.2025; 1 specimen, Yasnovka, 15.08.2025.

181. *Autographa gamma* (Linnaeus, 1758) – 1 specimen, Smirnovo, 03.07.2025; 1 specimen, Smirnovo, 14.08.2025.

182. *Plusia festucae* (Linnaeus, 1758) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 21.06.2025; 1 specimen, Yasnovka, 15.08.2025.

183. *Deltote bankiana* (Fabricius, 1775) – 1 specimen, Smirnovo, 13.06.2025.

184. *Acontia lucida* (Hufnagel, 1766) – 2 specimens, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 22.07.2025.

185. *Acontia trabealis* (Scopoli, 1763) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Semipolka 07.06.2025; 1 specimen, Smirnovo, 13.06.2025; 3 specimens, Smirnovo, 22.07.2025; 1 specimen, Yasnovka, 15.08.2025; 1 specimen, Smirnovo, 06.09.2025.

186. *Aedia funesta* (Esper, 1786) – 1 specimen, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Semipolka, 07.06.2025; 4 specimens, Smirnovo, 13.06.2025; 2 specimens, Smirnovo, 21.06.2025.

187. *Acronicta auricoma* ([Denis & Schiffermüller], 1775) – 4 specimens, Smirnovo, 26.04.2025.

188. **Acronicta cuspis* (Hübner, 1813) – 1 specimen, Smirnovo, 12.07.2025 (Fig.48).

189. *Acronicta psi* (Linnaeus, 1758) – 1 specimen, Smirnovo, 22.07.2025.

190. *Acronicta vulpina* (Grote, 1883) – 1 specimen, Smirnovo, 31.05.2025.

191. *Mycteroplus puniceago* (Boisduval, 1840) – 1 specimen, Smirnovo, 22.07.2025.

192. *Tyta luctuosa* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 13.06.2025; 1 specimen, Semipolka, 07.08.2025.

193. *Cucullia fuchsiana* (Eversmann, 1842) – 1 specimen, Smirnovo, 03.07.2025; 1 specimen, Smirnovo, 22.07.2025.

194. **Cucullia xeranthemi* (Boisduval, 1840) – 1 specimen, Antonovka, 21.05.2025 (Fig. 49).

195. *Calophasia lunula* (Hufnagel, 1766) – 1 specimen, Smirnovo, 31.05.2025.

196. *Pyrrhia umbra* (Hufnagel, 1766) – 1 specimen, Smirnovo, 12.07.2025.

197. *Heliothis viriplaca* (Hufnagel, 1766) – 1 specimen, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 04.08.2025.

198. *Helicoverpa armigera* (Hübner, 1808) – 1 specimen, Smirnovo, 13.09.2025.

199. *Athaumasta expressa* (Lederer, 1855) – 6 specimens, Antonovka, 21.05.2025.

200. *Caradrina morpheus* (Hufnagel, 1766) – 1 specimen, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 21.06.2025.

201. *Caradrina terrea* (Freyer, 1840) – 1 specimen, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 04.08.2025.

202. **Gracilathetis lepigone* (Möschler, 1860) – 2 specimens, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 13.06.2025 (Fig. 50).

203. *Gortyna flavago* ([Denis & Schiffermüller], 1775) – 2 specimens, Smirnovo, 13.09.2025; 25 specimens, Semipolka, 13.09.2025; 1 specimen, Yasnovka, 20.09.2025; 1 specimen, Semipolka, 27.09.2025.

204. **Hydraecia micacea* (Esper, 1789) – 1 specimen, Yasnovka, 15.08.2025; 1 specimen, Smirnovo, 20.09.2025 (Fig. 51).

205. *Amphipoea fucosa* (Freyer, 1830) – 1 specimen, Smirnovo, 03.07.2025; 3 specimens, Smirnovo, 04.08.2025.

206. *Rhizedra lutosa* (Hübner, 1803) – 2 specimens, Smirnovo, 13.09.2025; 1 specimen, Smirnovo, 20.09.2025; 1 specimen, Yasnovka, 20.09.2025.

207. Nonagria typhae (Thunberg, 1784) – 1 specimen, Smirnovo, 13.09.2025; 1 specimen, Semipolka, 27.09.2025.

208. *Denticucullus pygmina* (Haworth, 1809) – 1 specimen, Smirnovo, 13.09.2025.

209. *Photedes fluxa* (Hübner, 1809) – 1 specimen, Smirnovo, 13.09.2025.

210. *Globia sparganii* (Esper, 1790) – 1 specimen, Smirnovo, 03.07.2025.

211. *Apamea lateritia* (Hufnagel, 1766) – 3 specimens, Smirnovo, 21.06.2025; 3 specimens, Smirnovo, 03.07.2025.

212. *Apamea sordens* (Hufnagel, 1766) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Semipolka, 07.06.2025.

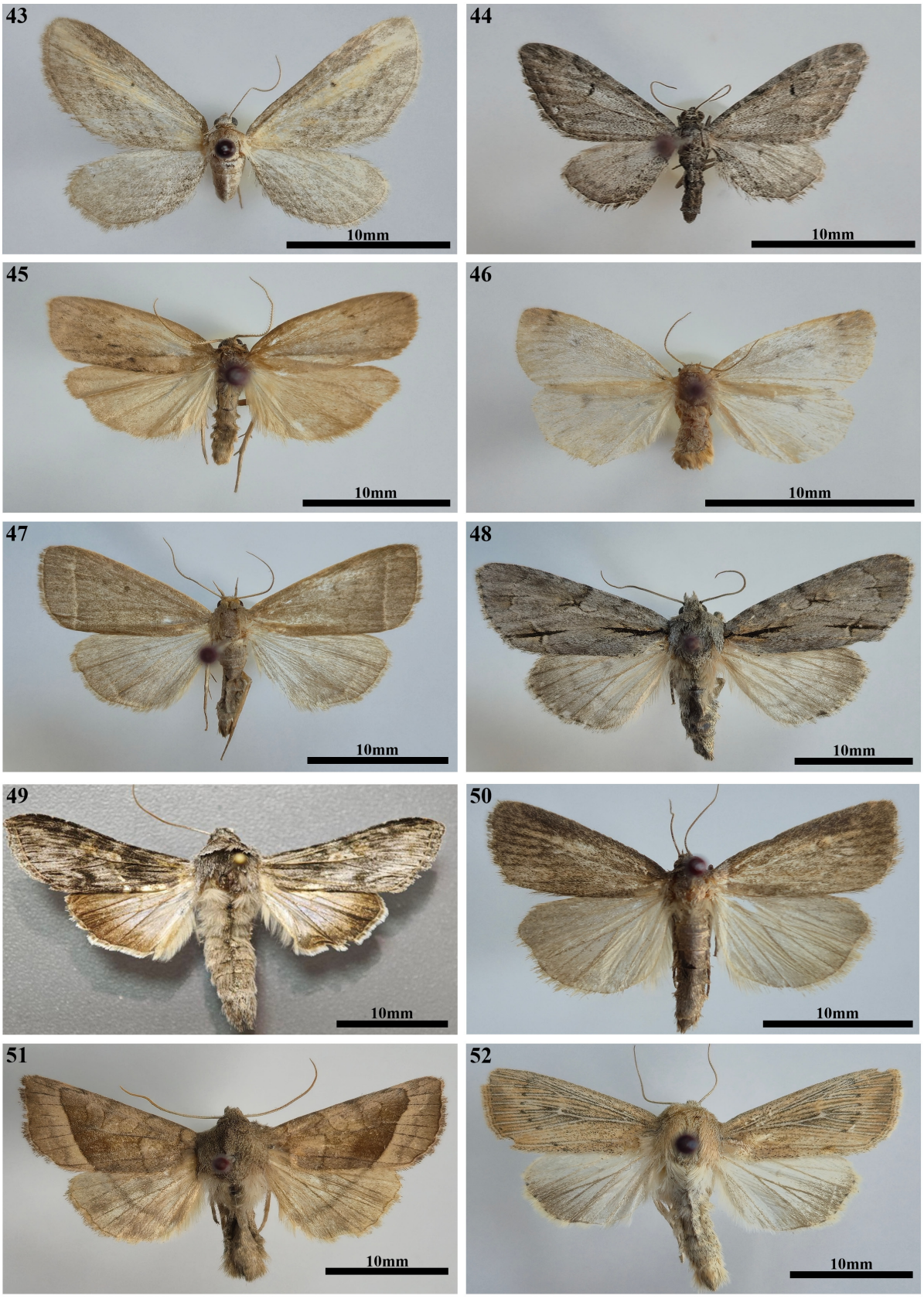
213. *Apterogenum ypsillon* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 21.06.2025.

214. *Xanthia togata* (Esper, 1788) – 1 specimen, Smirnovo, 20.09.2025; 1 specimen, Smirnovo, 27.09.2025.

215. *Cirrhia icteritia* (Hufnagel, 1766) – 1 specimen, Yasnovka, 20.09.2025.

216. *Cirrhia ocellaris* (Borkhausen, 1792) – 1 specimen, Semipolka, 13.09.2025; 1 specimen, Yasnovka, 20.09.2025.

217. *Conistra rubiginea* ([Denis & Schiffermüller], 1775) – 1 specimen, Yasnovka, 30.05.2025.



Figures 43–52. Lepidoptera new to the North Kazakhstan Region: 43 – *Eupithecia biornata*, 44 – *Eupithecia ochridata*; 45 – *Pelosia obtusa*; 46 – *Thumatha senex*; 47 – *Simplicia rectalis*; 48 – *Acronicta cuspis*; 49 – *Cucullia xeranthemi*; 50 – *Gracilathetis lepigone*; 51 – *Hydraecia micacea*; 52 – *Leucania obsoleta.*

218. *Conistra vaccinii* (Linnaeus, 1761) – 1 specimen, Smirnovo, 26.04.2025; 1 specimen, Yasnovka, 30.05.2025; 2 specimens, Yasnovka, 25.07.2025.

219. *Xylena vetusta* (Hübner, 1813) – 1 specimen, Yasnovka, 30.05.2025.

220. *Eupsilia transversa* (Hufnagel, 1766) – 1 specimen, Yasnovka, 25.07.2025.

221. *Enargia paleacea* (Esper, 1788) – 1 specimen, Smirnovo, 04.08.2025.

222. *Ammoconia caecimacula* (Denis & Schiffermuller, 1775) – 1 specimen, Smirnovo, 20.09.2025.

223. *Blepharita amica* (Treitschke, 1825) – 1 specimen, Yasnovka, 20.09.2025.

224. *Orthosia gothica* (Linnaeus, 1758) – 1 specimen, Yasnovka, 30.05.2025.

225. *Orthosia gracilis* (Denis & Schiffermuller, 1775) – 1 specimen, Smirnovo, 26.04.2025.

226. *Orthosia incerta* (Hufnagel, 1766) – 10 specimens, Smirnovo, 12.04.2025; 3 specimens, Smirnovo, 26.04.2025.

227. *Orthosia opima* (Hübner, 1809) – 1 specimen, Yasnovka, 30.05.2025.

228. *Tholera decimalis* (Poda, 1761) – 1 specimen, Yasnovka, 15.08.2025.

229. *Anarta trifolii* (Hufnagel, 1766) – 1 specimen, Smirnovo, 22.07.2025; 2 specimens, Smirnovo, 04.08.2025.

230. *Polia bombycina* (Hufnagel, 1766) – 1 specimen, Semipolka, 07.08.2025.

231. *Lacanobia aliena* (Hübner, 1808) – 2 specimens, Semipolka, 07.06.2025.

232. *Lacanobia oleracea* (Linnaeus, 1758) – 1 specimen, Smirnovo, 06.06.2025.

233. *Lacanobia suasa* ([Denis & Schiffermüller], 1775) – 3 specimens, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Semipolka, 07.06.2025; 2 specimens, Smirnovo, 13.06.2025; 2 specimens, Smirnovo, 12.07.2025; 2 specimens, Smirnovo, 22.07.2025.

234. *Lacanobia thalassina* (Hufnagel, 1766) – 1 specimen, Smirnovo, 31.05.2025.

235. *Lacanobia w-latinum* (Hufnagel, 1766) – 1 specimen, Smirnovo, 21.06.2025.

236. *Mamestra brassicae* (Linnaeus, 1758) – 1 specimen, Smirnovo, 21.06.2025.

237. *Sideridis lampra* (Schawerda, 1913) – 1 specimen, Semipolka, 07.06.2025.

238. *Hecatera dysodea* ([Denis & Schiffermüller], 1775) – 2 specimens, Smirnovo, 21.06.2025.

239. *Hadena albimacula* (Borkhausen, 1792) – 1 specimen, Antonovka, 21.05.2025.

240. *Mythimna conigera* ([Denis & Schiffermüller], 1775) – 1 specimen, Smirnovo, 04.08.2025.

241. *Mythimna ferrago* (Fabricius, 1787) – 2 specimens, Smirnovo, 22.07.2025.

242. *Mythimna impura* (Hübner, 1808) – 1 specimen, Smirnovo, 06.06.2025; 1 specimen, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 04.08.2025.

243. *Mythimna velutina* (Eversmann, 1846) – 1 specimen, Smirnovo, 03.07.2025.

244. *Leucania comma* (Linnaeus, 1761) – 1 specimen, Antonovka, 21.05.2025; 1 specimen, Smirnovo, 13.06.2025.

245. **Leucania obsoleta* (Hübner, 1803) – 1 specimen, Smirnovo, 31.05.2025 (Fig. 52).

246. *Euxoa nigricans* (Linnaeus, 1761) – 1 specimen, Smirnovo, 04.08.2025.

247. *Agrotis exclamationis* (Linnaeus, 1758) – 2 specimens, Smirnovo, 06.06.2025; 4 specimens, Semipolka, 07.06.2025; 1 specimen, Smirnovo, 13.06.2025.

248. *Axylia putris* (Linnaeus, 1761) – 1 specimen, Smirnovo, 13.06.2025; 1 specimen, Smirnovo, 21.06.2025; 1 specimen, Smirnovo, 03.07.2025.

249. *Xestia c-nigrum* (Linnaeus, 1758) – 4 specimens, Smirnovo, 31.05.2025; 1 specimen, Smirnovo, 06.06.2025; 2 specimens, Semipolka, 07.06.2025; 3 specimens, Semipolka, 07.08.2025; 1 specimen, Yasnovka, 15.08.2025; 1 specimen, Smirnovo, 20.09.2025.

250. *Xestia ditrapezium* ([Denis & Schiffermüller], 1775) – 2 specimens, Semipolka, 07.06.2025; 1 specimen, Semipolka, 27.09.2025.

Conclusion

Based on material collected in 2025, the knowledge of the Lepidoptera fauna of Northern Kazakhstan has been substantially expanded. A total of 250 Lepidoptera species belonging to 27 families were recorded, of which 45 species are reported for the first time from the studied territory. As a result, the regional checklist of Lepidoptera of Northern Kazakhstan has been supplemented with 45 newly

recorded species. Taking into account previously published data, the total number of Lepidoptera species currently known from the region now reaches 709 species.

The results highlight the high faunistic heterogeneity of Northern Kazakhstan, located at the junction of steppe and forest-steppe zones, and emphasize the importance of continued regional surveys. The Lepidoptera fauna of the region remains insufficiently studied, and further targeted investigations, including surveys in poorly explored habitats and seasons, are likely to reveal additional species new to the regional fauna.

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