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Macromoths (Insecta, Lepidoptera: Macroheterocera) of the Anyuisky National Park, Khabarovsk Krai, Russia: Additions from 2021–2023

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Abstract. The paper presents a list of Macroheterocera moths (excluding Geometridae) discovered in 2021–2023 in the Anyuisky National Park (81 species) from the families Zygaenidae, Thyrididae, Thyatiridae, Lasiocampidae, Endromididae, Notodontidae, Lymantriidae, Arctiidae, Nolidae, Erebidae, and Noctuidae. The list also includes first records of spring-flying moths.

Keywords: Macroheterocera, Lepidoptera, moths, Anyuisky National Park, Khabarovsk Krai

Macroheterocera (Insecta, Lepidoptera: Macroheterocera) национального парка «Анюйский» (Хабаровский край). Дополнения 2021–2023 годов

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Аннотация. Приводится список крупных ночных чешуекрылых Macroheterocera (без Geometridae), впервые отмеченных в Анюйском национальном парке в 2021–2023 годах, включающий 81 вид — представителей семейств Zygaenidae, Thyrididae, Thyatiridae, Lasiocampidae, Endromididae, Notodontidae, Lymantriidae, Arctiidae, Nolidae, Erebidae и Noctuidae. Впервые публикуются сведения по весенним видам парка.

Ключевые слова: Macroheterocera, Lepidoptera, ночные чешуекрылые, Анюйский национальный парк, Хабаровский край

The publication of the first list of Macroheterocera from the Anyuisky National Park (Dubatolov 2020), was followed by further studies in the Park in 2021–2023, including the spring period. Macroheterocera moths were collected 17–19.05 and 3–5.08.2021 as well as 11–13.05, 12–14.07 and 5–7.09.2022 and 29–31.05, 13–16.06 and 11–13.07.2023. The material was obtained in the following places:

1) ***Bogbasu (кордон Богбасу)*** (49°22′30″(22,53′)N, 137°42′44″(42,52′)E): three local places: 1) floodplain mixed broad-leaved forest; 2) a descent to the Bogbasu (49°22′37″N, 137°42′43″E), mixed broad-leaved forest on the slope of a small stone scree; 3) mixed broad-leaved forest above the road (49°22′40″N, 137°42′48″E); 4) 5 km downstream from Bogbasu (49°20′15″N, 137°40′15″E), rocks with talus;

2) ***Mukhe (кордон Мухе)*** (49°22′24″N, 137°26′E): the Mukhe River (the right tributary of the Anyui River) at its mouth, mixed broad-leaved forest in the lower part of the mountain slope; moth collecting mainly with a light trap and light from a house;

3) ***Nilo (кордон Нило)*** (49°15′6″N, 137°16′2″E): houses among the valley broad-leaved forest, moth collecting on light of DRV-lamp (220 V) and under the canopy of the forest with a light trap;

4) ***Solomi (кордон Соломи)*** (49°22′20″N, 137°31′18″E) — houses among the valley broad-leaved forest, collecting on window of a house.

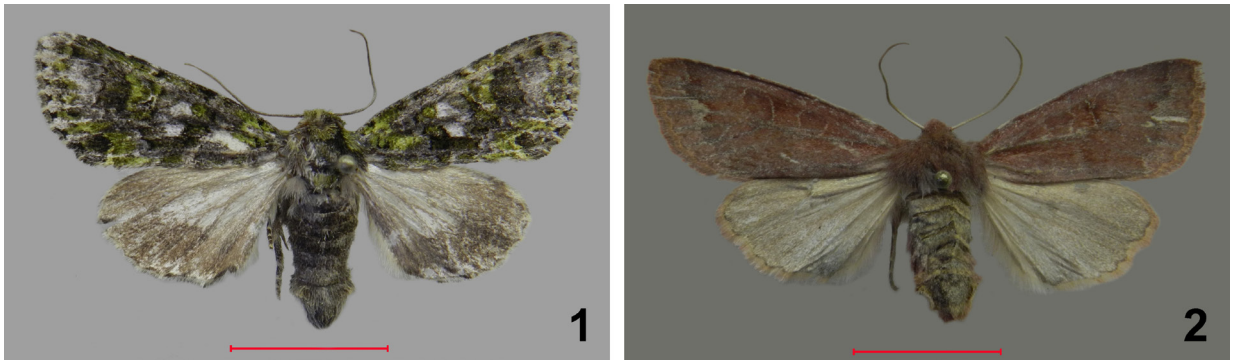
The species found in the territory of the Amur Oblast for the first time are marked with an asterisk (*). The most interesting Macroheteroptera species from the Anyuisky National Park are given below:

Family Noctuidae

Chytonix subalbonotata Sugi, 1959 — Mukhe, by light trap, 13-14.06.2023 — 1♂. The species was described from the Japanese island Honshu, later discovered in the Russian Southern Primorye and cited for "south of Khabarovsk territory" without any itemization (Kononenko 2016). It was never collected in Great Khekhtsyr near Khabarovsk.

Trachea punkikonis Matsumura, 1927 (Fig. 1) — Nilo, by light trap, 12-13.07.2022 — 1♀. Formerly, the species was known only from southern parts of the Khabarovsk Krai, Primorsky Krai, Sakhalin, China (including Taiwan), Korea and Japan (Kononenko 2016). For the Khabarovsk Krai, no clear identification of the territory was given: in Jewish Autonomous Region or in Khabarovsk Krai, s. str. Importantly, the species was never found in the Bolshekhekhtsirsky Nature Reserve or its environs.

Orthosia odiosa (Butler, 1878) (Fig. 2) — Mukhe, by light trap, 18-19.05.2021 — 1♀. Until now, the species was known in the Amur River basin from Khabarovsk only (Duba-



Figs. 1–2. Noctuids (Noctuidae) from Anyuisky National Park: *1* — *Trachea punkikonis* Matsumura, 1927, ♀, Nilo, 12–13.07.2022; 2 — *Orthosia odiosa* (Butler, 1878), ♀, Mukhe, 18–19.05.2021

Рис. 1–2. Совки (Noctuidae) из Анюйского национального парка: *1* — *Trachea punkikonis* Matsumura, 1927, ♀, кордон Нило, 12–13.07.2022; *2* — *Orthosia odiosa* (Butler, 1878), ♀, кордон Мухэ, 18–19.05.2021

tolov, Dolgikh 2009); the species also occurs in Primorsky Krai, Korea and Japan (Kononenko 2003).

The full list of Macrolepidoptera found in the Anyuisky National Park is published in the following table.

Table 1

Additional Macroheterocera of the Anyuisky National Park collected in 2021–2023

Таблица 1

Дополнительные виды Macroheterocera Анюйского национального парка, собранные в 2021–2023 гг.

Species / Вид	Material / Материал
1	2
Zygaenidae	
Inope heterogyna Staudinger, 1887	Bogbasu, 16–17.06.2023
Thyrididae	
Thyris fenestrella (Scopoli, 1763)	Bogbasu, 17.06.2023
Thyatiridae	
Neoploca arctipennis (Butler, 1878)	Nilo, 18–19.05.2021
Neodaruma tamanuki Matsumura, 1933	Bogbasu, 11–12.05.2022
Shinploca shini Kim Sung Soo, 1985	Nilo, 18–19.05.2021
Drepanidae	
Pseudoalbara parvula (Leech, 1890)	Nilo, 3–4.08.2021
Lasiocampidae	
Phyllodesma japonicum (Leech, [1889])	Bogbasu, 17–18.05.2021
Endromididae	
Endromis versicolora (Linnaeus, 1758)	Nilo, 05.2021 (dry moth on window)
Notodontidae	
Dicranura tsvetaevi Schintlmeister et Sviridov, 1985	Nilo, 18–19.05.2021
Harpyia tokui (Sugi, 1977)	Nilo, 18–19.05.2021
Leucodonta bicoloria ([Denis et Schiffermüller], 1775)	Kiya, 7.06.2023, photo (Gotvanskii)
Ellida arcuata Alpheraky, 1897	Bogbasu, 17–18.05.2021; Nilo, 29–30.05.2023
Ellida branickii (Oberthür, 1881)	Nilo, 18–19.05.2021
Ptilodon capucina (Linnaeus, 1758)	Nilo, 3–4.08.2021, 13–14.06.2023
Odontosia brinikhi Dubatolov, 2006	Bogbasu, 17–18.05.2021; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Odontosia sieversii (Ménétriès, 1856)	Bogbasu, 17–18.05.2021
Clostera anachoreta ([Denis et Schiffermüller], 1775)	Nilo, 18–19.05.2021
Lymantriidae	
Calliteara abietis ([Denis et Schiffermüller], 1775)	Nilo, 18–19.05.2021
Calliteara pudibunda (Linnaeus, 1758)	Nilo, 29–30.05, 13–14.06.2023; Solomi, 30.05.2023; Bogbasu, 14–16.06.2023
Arctiidae	
Setina irrorella (Linnaeus, 1758)	Bogbasu, 4–5.08.2021; Nilo, 3–4.08.2021
Aemene altaica (Lederer, 1855)	Bogbasu, 6–7.09.2022, 11–12.07.2023
Spilosoma lubricipedum (Linnaeus, 1758)	Nilo, 13–14.06.2023; Bogbasu, 14–15.06.2023
Noctuidae, s.l.: Nolidae	
Nola cicatricalis (Treitschke, 1835)	Nilo, 12–13.07.2022
Nola confusalis (Herrich-Schäffer, 1847)	Nilo, 18–19.05.2021
Nola nami (Inoue, 1956)	Nilo, 18–19.05.2021
Erebidae	
Idia quadra (Graeser, [1889])	Nilo, 3–4.08.2021
Polypogon tentacularia (Linnaeus, 1758)	Bogbasu, 12–13.07.2023

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Table 1. Continued
Таблица 1. Продолжение

1	2
Zanclognatha fumosa (Butler, 1879)	Bogbasu, 13–14.07.2022; Mukhe, 12–13.07.2022; Nilo, 12–13.07.2022
Sinarella aegrota (Butler, 1879)	Bogbasu, 13–14.07.2022
Hypena bicoloralis (Graeser, [1889])	Nilo, 3–4.08.2021
Catocala dissimilis Bremer, 1861	Bogbasu, 6–7.09.2022
Catocala pacta (Linnaeus, 1758)	Bogbasu, 4–5.08.2021
Noctuidae, s.str.	
Abrostola ussuriensis Dufay, 1958	Bogbasu, 4–5.08.2021
Diachrysia stenochrysis (Warren, 1913)	Nilo, 24–25.07.2018
Polychrysia esmeralda (Oberthür, 1880)	Bogbasu, 6–7.09.2022
Autographa mandarina (Freyer, 1845)	Bogbasu, 14–16.06.2023
Plusia festucae (Linnaeus, 1758)	Bogbasu, 4–5.08.2021; Nilo, 3–4.08.2021
Deltote nemorum (Oberthür, 1880)	Bogbasu, 11–12.07.2023
Acronicta rumicis (Linnaeus, 1758)	Nilo, 3–4.08.2021
Cucullia pustulata Eversmann, 1842	Bogbasu, 12.07.2023, *larva* on *Lactuca sibirica*, photo
Calliergis ramosula (Staudinger, 1888)	Nilo, 13–14.06.2023
Phidrimana amurensis (Staudinger, 1892)	Nilo, 3–4.08.2021
Valeria dilutiapicata Filipjev, 1927	Bogbasu, 17–18.05.2021; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Feralia sauberi (Graeser, 1892)	Nilo, 18–19.05.2021
Chytonix subalbonotata Sugi, 1959	Mukhe, 13–14.06.2023
Cryphia mediofusca Sugi, 1958	Bogbasu, 6–7.09.2022
Cosmia inconspicua (Draudt, 1950)	Nilo, 12–13.07.2022
Cosmia moderata (Staudinger, 1888)	Mukhe, 3–4.08.2021; Nilo, 3–4.08.2021
Dypterygia caliginosa (Walker, 1858)	Nilo, 12–13.07.2022
Trachea atriplicis (Linnaeus, 1758)	Bogbasu, 13–14.07.2022
Trachea punkikonis Matsumura, 1927	Nilo, 12–13.07.2022
Actinotia polyodon (Clerck, 1759)	Nilo, 3–4.08.2021
Chandata bella (Butler, 1881)	Bogbasu, 4–5.08.2021; 6–7.09.2022; Mukhe, 5–6.09.2022; Nilo, 3–4.08.2021
Amphipoea ussuriensis (Petersen, 1914)	Bogbasu, 6–7.09.2022; Nilo, 3–4.08.2021
Pabulatrix pabulatricula (Brahm, 1791)	Nilo, 3–4.08.2021
Litoligia fodinae (Oberthür, 1880)	Nilo, 3–4.08.2021
Conistra albipuncta (Leech, 1889)	Bogbasu, 17–18.05.2021; Mukhe, 18–19.05.2021; Nilo, 18–19.05.05.2021
Conistra grisescens Draudt, 1950	Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Lithophane rosinae (Püngeler, 1906)	Mukhe, 5–6.09.2022; Nilo, 18–19.05.2021
Lithophane venusta (Leech, 1889)	Mukhe, 18–19.05.2021; 5–6.09.2022
Eupsilia transversa (Hufnagel, 1767)	Bogbasu, 17–18.05.2021; 11–12.05.2022; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Panolis japonica Draudt, 1935	Bogbasu, 11–12.05.2022; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Clavipalpula aurariae (Oberthür, 1880)	Bogbasu, 17–18.05.2021; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
**Xylopolia bellula* Kononenko et Ronkay, 1995	Mukhe, 18–19.V 2021; Nilo, 18–19.05.2021
**Orthosia askoldensis* (Staudinger, 1892)	Bogbasu, 17–18.05.2021; 11–12.05.2022; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Orthosia carnipennis (Butler, 1878)	Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021

Table 1. End
Таблица 1. Окончание

1	2
Orthosia evanida (Butler, 1879)	Bogbasu, 17–18.05.2021; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Orthosia incerta (Hufnagel, 1767)	Bogbasu, 17–18.05.2021; Nilo, 18–19.05.2021
Orthosia lizetta (Butler, 1878)	Bogbasu, 17–18.05.2021, 11–12.05.2022; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Orthosia odiosa (Butler, 1878)	Mukhe, 18–19.05.2021
Orthosia paromoea (Hampson, 1905)	Bogbasu, 17–18.05.2021, 11–12.05.2022; Nilo, 18–19.05.2021
Orthosia ussuriana Kononenko, 1988	Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Anorthoa angustipennis (Mastsumura, 1926)	Boigbasu, 11–12.05.2022; Nilo, 18–19.05.2021
Anorthoa munda ([Denis et Schiffermüller], 1775)	Bogbasu, 17–18.05.2021; Nilo, 18–19.05.2021
Harutaeographa stenoptera (Staudinger, 1892)	Bogbasu, 17–18.05.2021; Nilo, 18–19.05.2021
Pseudopanolis heterogyna (O.Bang-Haas, 1927)	Bogbasu, 17–18.05.2021; Mukhe, 18–19.05.2021; Nilo, 18–19.05.2021
Ochropleura plecta (Linnaeus, 1761)	Bogbasu, 14–15.06.2023
Cerastis pallescens (Butler, 1878)	Nilo, 18–19.05.2021
Chersotis deplanata (Eversmann, 1843)	Bogbasu, 4–5.08.2021
Cryptocala chardinyi (Boisduval, 1829)	5 km downstream from Bogbasu, rocks, 12–13.07.2023
Eurois occulta (Linnaeus, 1758)	Nilo, 3.08.2021

The species formerly collected only at the border of the Anyuisky National Park at the turn to Lidoga of the road from Khabarovsk to Komsomolsk-on-Amur (Dubatolov 2011) are marked with an asterisk (*); for the last two years they have been found throughout the Park.

Thus, taking into account Microlepidoptera and butterflies, 1150 Lepidoptera species were found in the Anyuisky National Park up to 2023.

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