

Phaneroptera nana Fieber, 1853 (Orthoptera: Tettigoniidae) – a new species of bush-cricket in Poland

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Abstract: *Phaneroptera nana* Fieber, 1853 is a south European thermophilous bush-cricket that has been recently spreading north and colonizing Central Europe. Here, we present the first documented records of this species in Poland, collected between 2020 and 2024. Following five accidental findings in 2020 and 2022, a targeted survey conducted across 47 UTM 10×10 km grid squares in 2023 and 2024 raised the total to 317 records. The majority of the records were concentrated in southeastern Poland, and in the cities of Kraków and Warsaw. Individuals were typically recorded in urban greeneries, with adults present from mid-July to early November.

Key words: new records, distribution, range expansion, Mediterranean katydid

INTRODUCTION

In recent decades, a rapid northward expansion of thermophilic Orthoptera species has been observed across Central Europe. This trend includes species such as *Phaneroptera falcata* (Poda, 1791) (Żurawlew et al. 2017, Krištín et al. 2022a), *Roeseliana roeselii* (Hagenbach, 1822) (Wissmann et al. 2009), and the flightless *Meconema meridionale* Costa, 1860 (Liana & Michalcewicz 2014, Grobelny et al. 2019). In Poland, species once regarded as rare and local, such as *Eumodicogryllus bordigalensis* (Latreille, 1804) (Liana & Wawer 2019, Brodacki et al. 2020, Żurawlew et al. 2025) and *Oecanthus pellucens* (Scopoli, 1763) (Brodacki 2018, 2022; Jirak-Leszczynska 2020; Mokrzycki et al. 2020; Bury & Mazepa 2022; Żurawlew et al. 2025), have significantly expanded their ranges. Additionally, the first Polish records of *Ruspolia nitidula* (Scopoli, 1786) (Brodacki 2015) and *Pteronemobius heydenii* (Fischer, 1853) (Brodacki 2018, 2022) have been reported.

Among the species expanding northward is *Phaneroptera nana* Fieber, 1853, whose rapid spread has been recently documented in the Czech Republic and Slovakia (Kočárek et al. 2008, Krištín et al. 2022a). This range expansion is thought to be primarily driven by climate change (Kenyeres et al. 2023).

Phaneroptera nana is a medium-sized, winged bush-cricket species whose conservation status is classified as Least Concern (LC) by the IUCN (2025). This species is widespread throughout southern Europe, the Black Sea region, and the Mediterranean Basin, excluding the area between Tunisia and Egypt. It has also been introduced and occurs locally in the United States. Given the current expansion trends, it was reasonable to assume that this species had already reached Poland. The aim of this study was to verify the presence of *P. nana* in selected regions of the country.

MATERIALS AND METHODS

Between 2019 and 2022, we examined live *Phaneroptera* individuals collected personally, in search of those exhibiting morphological features characteristic of *P. nana* (described later in this section). In 2023 and 2024, we also conducted targeted acoustic surveys in south-eastern Poland (near Krosno, Jasło, Rzeszów, and Sanok), as well as in Kraków and Warsaw, using an ultrasonic detector (Magenta Bat Detector 4). These surveys were carried out during the peak activity period of adults (from late July to late October) in suitable habitats, such as urban greeneries and riparian vegetation areas (Krištin 2025). In addition to the authors' own acoustic and visual observations, the study also incorporates verified incidental records from 2022–2024 submitted via online platforms (Facebook, iNaturalist).

The identification of the species was performed based on both morphological characteristics and acoustic analysis. Morphological identification within this genus is relatively challenging and relies on differences in overall body shape, hind femur width, the shape of the subgenital plate in males, and the coloration of the ovipositor in females (Faune-Alsace 2025; Rutschmann & Roesti 2025) (Fig. 1). Additionally, identification can be achieved through analysis of stridulation. The frequency spectrum of *P. nana* peaks at 14–22 kHz, whereas that of *P. falcata* ranges from 17–28 kHz (Heller 1988). Consequently, the song of *P. nana* is lower-pitched and more readily detectable without specialized equipment.

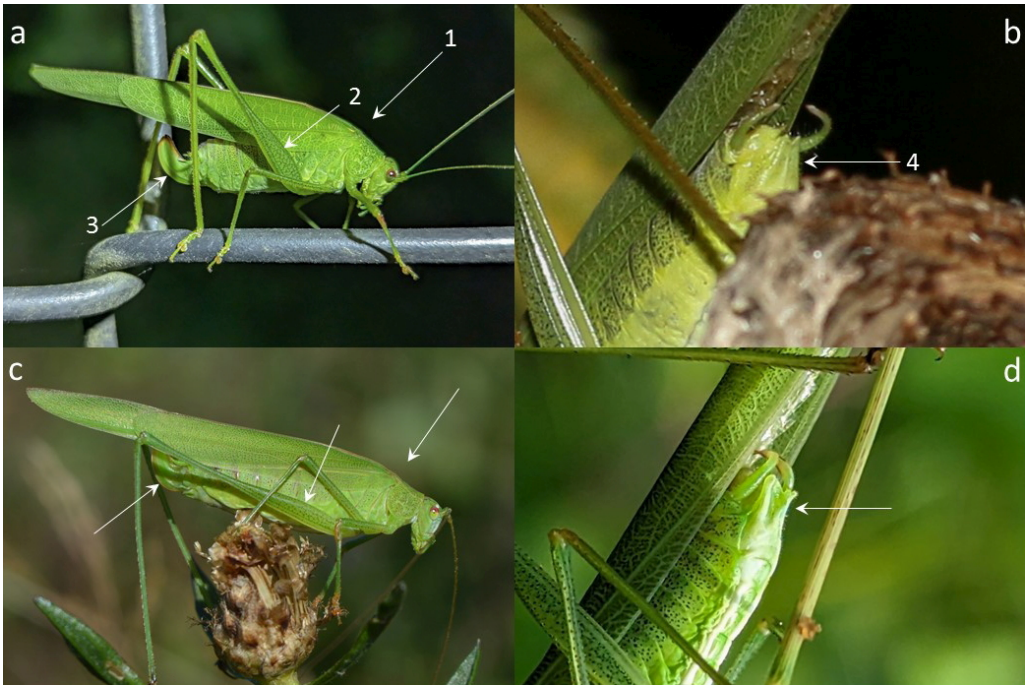


Figure 1. Comparison of *Phaneroptera nana* (top row: a – female, b – male) and *P. falcata* (bottom row: c – female, d – male). *P. nana* displays a distinct hump near the wing base (1) and a broader hind femur (2). The female ovipositor lacks a dark lower margin (3). The male subgenital plate is compact in shape (4). (Diagnostic features after Faune-Alsace 2025, Rutschmann & Roesti 2025; photos by W. & P. Guzik).

RESULTS

The research was initiated following an incidental finding of a *P. nana* male in 2022 in Posada Zarszyńska (Jasło-Krosno Basin, Podkarpackie; further details below) (Solon et al. 2018). Subsequent surveys in 2023–2024 led to the discovery of multiple populations in southeastern and central Poland. Retrospective analysis also uncovered earlier recordings of this species in 2020–2022.

Distribution

During this study, we collected 317 records of *Phaneroptera nana* between 2020 and 2024 across seven regions of Poland (Voivodeships: Dolnośląskie, Łódzkie, Małopolskie, Mazowieckie, Opolskie, Podkarpackie, and Wielkopolskie) (Fig. 2).

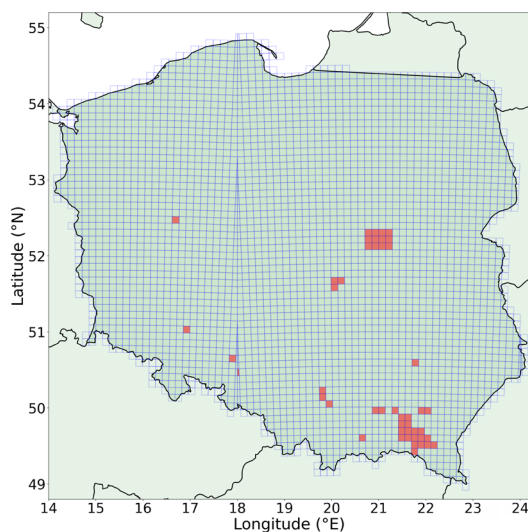


Figure 2. Known distribution of *Phaneroptera nana* in Poland, 2020–2024 (UTM grid, 10 x 10 km squares).

Chronologically, the earliest confirmed observations of *P. nana* in Poland date back to 2020, with two records from Kraków in late September and early October. In 2022, three additional accidental findings were made in Warsaw, Wrocław, and Posada Zarszyńska. Subsequent targeted surveys conducted in 2023–2024 revealed a more complete picture of the species' distribution. In total, 317 records were collected between 2020 and 2024, with the majority originating from southeastern and central Poland (a complete list of observations is available in the Table 1). The largest and most coherent area of occurrence was found in the Podkarpackie and Małopolskie Voivodeships, where the species was widespread and locally abundant in both urban and rural landscapes. A high number of observations were also documented in the Mazowieckie Voivodeship, particularly in and around the city of Warsaw, which alone accounts for over 190 records. Moreover, Kraków and its surroundings contributed more than 30 additional records. Outside of these core areas, the species was detected sporadically in four other regions: Dolnośląskie, Łódzkie, Opolskie, and Wielkopolskie Voivodeships. These records represent isolated occurrences and suggest either recent colonization events or insufficient sampling in those areas.

Despite search efforts, the species was not found in some parts of the Podkarpackie Voivodeship (the town of Sanok, Lesko, Dynów, Brzozów) and in the city of Siedlce east of Warszawa.

Habitat

The largest number of individuals (up to a dozen) were observed in human settlements, within both urban and rural landscapes. The species inhabits residential greeneries, hedgerows, allotment gardens, cemeteries, inner-city green spaces (including ornamental shrubs and trees, patches of grapevine *Vitis* sp. and Virginia creeper *Parthenocissus quinquefolia*), roadside vegetation, and private gardens (Fig. 3). Numerous but localized occurrences were also recorded in ruderal vegetation within a railway cutting in Warsaw.

Outside human settlements, individuals were usually encountered singly in low scrub and roadsides. Specimens typically rest on the leaves of shrubs and trees at heights of at least 1 meter above the ground. Occasionally, single individuals were also observed in mountain meadow vegetation.

Phenology

The first adult individuals were observed in the middle of July. The emergence period was extended, with nymphs still occurring up to September 20 (Boguchwała; W. Guzik, T. Mazurkiewicz), while the peak of adults was recorded in mid- to late September (see Table 1). The extreme observation dates recorded for the species were: 14 July (Warszawa; M. Brodacki) and 16 July (Kraków; Sz. Mazgaj), as well as 1 November (Krosno; P. Guzik) and 10 November (Warszawa; M. Radzikowski and R. Szulc).



Figure 3. Typical habitat of *P. nana* in Poland: urban greenery adjacent to an allotment garden complex.

DISCUSSION

The simultaneous discovery of distant and abundant occurrence clusters of this species, specifically in the Warszawa area and in the Podkarpackie and Małopolskie Voivodeships, suggest that the expansion of this species in Poland has been ongoing for at least several years. Notwithstanding, despite the extensive number of records provided in this study, our results might still be the outcomes of limited and uneven geographical coverage of the survey efforts due to different challenges. For instance, the difficulty in detecting the species and distinguishing it from *P. falcata* has likely contributed to the fact that relatively few observers have been involved in its search to date.

An additional challenge in finding this species is the scarce information about *P. nana*'s ecology. Prior to fieldwork, suitable habitats were inferred based on both personal experience with related species and published data from neighboring countries. For example, records from northern Slovakia (Krištín 2025) indicated occurrences in riparian vegetation dominated by *Salix*, *Rubus*, *Solidago*, and *Urtica* species. In light of this information, as well as habitat preferences of other bush-cricket species in the region, we initially expected *P. nana* to occur in natural or semi-natural herbaceous vegetation. However, our results suggest that urban populations — which turned out to be widespread — may have been overlooked in the early stages of fieldwork. Additionally, little is still known about its microhabitat preferences. It is also worth noting that our observations conducted in the southern part of the Podkarpackie Voivodeship suggest that *P. nana* may avoid mountainous areas since we have recorded only single individuals, whereas no stable populations were found in the Beskid Niski Mts.

Although the most common dispersal method of this species remains unknown, previous studies suggest that *P. nana* might employ different strategies. In the case of those populations inhabiting urban environments, as in other species, some hypotheses suggest that its dispersal might be facilitated by human activity, such as the transport of plants, construction materials, or trade (Kaňuch et al. 2013, Krištín 2022b). However, the natural dispersal capabilities of long-winged Orthoptera species should also be taken into account. For example, the expansion rate of *Ruspolia nitidula* in the Czech Republic has been estimated at 11.1–16.2 km per year, which is explained by the high mobility of adult individuals of this species (Kaláb et al. 2021). Similar flight capabilities may apply to *P. nana*, as suggested by the observation of a male *P. nana* actively moving northward (observation by P. Guzik) on 29 September 2023 in the Beskid Niski Mts, near a mountain pass in the village of Zawadka Rymanowska (495 m a.s.l.). After being captured and photographed, the insect was released and continued flying northward at a speed of approximately 3 m/s at a height of around 2 metres above the ground, covering a distance of at least 200 metres. Based on this observation, it can be assumed that solitary individuals found in mountainous habitats are migratory.

Finally, *P. nana* is one of the species whose arrival in Poland was anticipated due to its presence in neighbouring countries. In the coming years, further range expansions of other thermophilous species may be expected, such as *Platycleis affinis* Fieber, 1853, recently recorded twice in Poland (Guzik & Guzik 2024), or *Acrida ungarica* (Herbst, 1786), whose northward spread is already being observed in Hungary (Kenyeres et al. 2023). This ongoing expansion of thermophilous Orthoptera may lead to changes in the structure of local biocenoses; however, the potential impact of *P. nana* on native fauna in Poland remains unknown. Thus, future research should focus on its interactions with other species, its role in both urban and natural ecosystems, and on documenting its presence in poorly surveyed parts of the country. Therefore, we encourage researchers and naturalists to actively search for *P. nana* in unexplored regions of Poland, particularly in areas where suitable habitats occur. A coordinated and comprehensive survey of its distribution will be essential for assessing its true range and understanding the ecological implications of its ongoing expansion.

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STRESZCZENIE

***Phaneroptera nana* Fieber, 1853 (Orthoptera: Tettigoniidae) - nowy gatunek pasikonika w faunie Polski**

W pracy przedstawiono dane na temat występowania nowego dla fauny polski gatunku pasikonika: *Phaneroptera nana*. W latach 2020–2024 odkryto populacje tego gatunku w 47 kwadratach UTM, w województwach dolnośląskim, łódzkim, małopolskim, mazowieckim, opolskim, podkarpackim i wielkopolskim. Najliczniej gatunek ten występuje w środowiskach zurbanizowanych. Odnaleziono go w miastach, m. in. Warszawie, Krakowie, Wrocławiu i Opolu, oraz wielu mniejszych miejscowościach. Jedną z obserwacji dotyczyła osobnika migrującego w okolicach przełęczy górskiej w Beskidzie Niskim. Najczęściej zasiedla różnego rodzaju zieleni śródmiejską: zadrzewienia, żywopłoty, ogródki działkowe, cmentarze, krzewy i drzewa ozdobne, płaty winorośli i winobluszczu, drogowe pasy zieleni, ogrody, roślinność ruderalną. Owady przebywają zazwyczaj na liściach drzew i krzewów na wysokości powyżej 1 m nad ziemią. Ze względu na jednoczesne odkrycie odległych od siebie ognisk licznego występowania tego gatunku, można podejrzewać, że jego ekspansja trwa już w Polsce co najmniej od kilku lat.

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Table 1. List of observation records of *Phaneroptera nana* Fieber, 1853 in Poland, 2020–2024.

No.	Date DD/MM/ YYYY	Location	KFP region (Tykarski 2010)	Latitude (°N)	Longitude (°E)	UTM	Details	Author(s)
Dolnośląskie								
1	25/08/2022	Wrocław	Lower Silesia	51,067	16,997	XS35	1 ♂	Katarzyna Gawor
Łódzkie								
2	17/08/2024	Lechów	Małopolska Upland	51,642	20,132	DC32	~5 ♂♂	Michał Brodacki
3	17/08/2024	Lechów	Małopolska Upland	51,642	20,133	DC42	~5 ♂♂	Michał Brodacki
4	18/08/2024	Spała	Małopolska Upland	51,542	20,134	DC31	1 ♂	Michał Brodacki
Małopolskie								
5	25/09/2020	Kraków	Krakowsko-Wieluńska Upland	50,075	19,974	DA24	~5 ♂♂	Wojciech Guzik
6	04/10/2020	Kraków	Krakowsko-Wieluńska Upland	50,078	20,001	DA24	1 ♂	Wojciech Guzik
7	09/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,043	19,991	DA24	1 ♂	Wojciech Guzik
8	09/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,043	19,991	DA24	~5 ♂♂	Wojciech Guzik
9	10/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,045	19,992	DA24	1 ♂	Wojciech Guzik, Szymon Mazgaj
10	10/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,045	19,992	DA24	~5 ♂♂	Wojciech Guzik, Szymon Mazgaj
11	10/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,044	19,991	DA24	~5 ♂♂	Wojciech Guzik, Szymon Mazgaj
12	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,039	20,000	DA24	1 ♂	Wojciech Guzik
13	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,038	20,000	DA24	~5 ♂♂	Wojciech Guzik
14	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,037	20,000	DA24	~5 ♂♂	Wojciech Guzik
15	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,036	20,000	DA24	1 ♂	Wojciech Guzik
16	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,034	19,996	DA24	1 ♂	Wojciech Guzik
17	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,036	19,986	DA24	1 ♂	Wojciech Guzik
18	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,037	19,988	DA24	~5 ♂♂	Wojciech Guzik
19	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,038	19,990	DA24	1 ♂	Wojciech Guzik
20	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,039	19,991	DA24	1 ♂	Wojciech Guzik
21	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,042	19,991	DA24	1 ♂	Wojciech Guzik
22	11/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,045	20,017	DA24	~5 ♂♂	Szymon Mazgaj
23	12/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,023	19,911	DA24	1 ♂	Wojciech Guzik
24	14/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,050	19,985	DA24	~5 ♂♂	Szymon Mazgaj

Phaneroptera nana – new bush-cricket in Poland

25	15/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,056	19,945	DA24	1 ♂	Wojciech Guzik
26	15/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,054	19,948	DA24	2-3 ♂♂	Wojciech Guzik
27	15/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,053	19,947	DA24	1 ♂	Wojciech Guzik
28	15/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,051	19,949	DA24	~5 ♂♂	Wojciech Guzik
29	17/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,042	19,954	DA24	2-3 ♂♂	Wojciech Guzik
30	17/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,042	19,955	DA24	1 ♂	Wojciech Guzik
31	17/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,038	19,963	DA24	2 ♂♂	Wojciech Guzik
32	17/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,044	20,001	DA24	1 ♂	Wojciech Guzik
33	22/09/2023	Chełmiec	Western Beskidy Mts	49,631	20,667	DV79	>5 ♂♂	Szymon Mazgaj
34	30/09/2023	Kraków	Krakowsko-Wieluńska Upland	50,044	19,976	DA24	>10 ♂♂	Szymon Mazgaj
35	16/07/2024	Kraków	Krakowsko-Wieluńska Upland	50,039	19,997	DA24	2 ♂♂, 1 ♀	Szymon Mazgaj
36	11/08/2024	Tarnów	Sandomierska Lowland	50,005	21,019	EA03	2-3 ♂♂	Wojciech Guzik
37	13/08/2024	Sułoszowa	Krakowsko-Wieluńska Upland	50,249	19,768	DA16	1 ♂	Szymon Mazgaj
38	21/08/2024	Tarnów	Sandomierska Lowland	50,003	20,930	DA93	~5 ♂♂	Piotr Guzik
39	22/08/2024	Rząska	Krakowsko-Wieluńska Upland	50,099	19,837	DA15	~5 ♂♂	Piotr Guzik
40	17/09/2024	Tarnowiec	Eastern Beskidy Mts	49,982	20,986	DA93	2-3 ♂♂	Piotr Guzik
41	17/09/2024	Tarnowiec	Eastern Beskidy Mts	49,982	20,986	DA93	1-2 ♂♂	Piotr Guzik
42	08/10/2024	Kraków	Krakowsko-Wieluńska Upland	50,049	19,977	DA24	1 ♀	Albert Sułkowski
Mazowieckie								
43	16/08/2022	Warszawa	Mazovian Lowland	52,200	20,964	DC98	2 ♂♂	Michał Brodacki
44	18/08/2023	Warszawa	Mazovian Lowland	52,203	20,967	DC98	>3 ♂♂	Michał Brodacki
45	19/08/2023	Warszawa	Mazovian Lowland	52,203	20,966	DC98	1 ♂	Michał Brodacki
46	20/08/2023	Warszawa	Mazovian Lowland	52,205	20,955	DC98	2 ♂♂	Michał Brodacki
47	20/08/2023	Warszawa	Mazovian Lowland	52,202	20,956	DC98	1 ♂	Michał Brodacki
48	20/08/2023	Warszawa	Mazovian Lowland	52,203	20,966	DC98	>3 ♂♂	Michał Brodacki
49	03/09/2023	Warszawa	Mazovian Lowland	52,267	20,996	DC99	7-10 ind.	Światopełk Smoczyński
50	24/09/2023	Warszawa	Mazovian Lowland	52,203	20,966	DC98	>3 ♂♂	Michał Brodacki
51	24/09/2023	Warszawa	Mazovian Lowland	52,202	20,964	DC98	1 ♂	Michał Brodacki
52	24/09/2023	Warszawa	Mazovian Lowland	52,202	20,961	DC98	2 ♂♂	Michał Brodacki
53	24/09/2023	Warszawa	Mazovian Lowland	52,202	20,955	DC98	1 ♂	Michał Brodacki
54	24/09/2023	Warszawa	Mazovian Lowland	52,204	20,955	DC98	2 ♂♂	Michał Brodacki
55	25/09/2023	Warszawa	Mazovian Lowland	52,267	21,001	EC09	4-7 ind.	Światopełk Smoczyński
56	26/09/2023	Warszawa	Mazovian Lowland	52,266	20,995	DC99	2 ♂♂	Michał Brodacki
57	26/09/2023	Warszawa	Mazovian Lowland	52,269	20,999	DC99	>2 ♂♂	Michał Brodacki
58	27/09/2023	Warszawa	Mazovian Lowland	52,230	21,077	EC08	2 ♂♂	Michał Brodacki

No.	Date DD/MM/ YYYY	Location	KFP region (Tykarski 2010)	Latitude (°N)	Longitude (°E)	UTM	Details	Author(s)
Mazowieckie								
59	27/09/2023	Warszawa	Mazovian Lowland	52,233	21,074	EC08	1 ♂	Michał Brodacki
60	27/09/2023	Warszawa	Mazovian Lowland	52,236	21,077	EC08	1 ♂	Michał Brodacki
61	27/09/2023	Warszawa	Mazovian Lowland	52,236	21,076	EC08	2 ♂♂	Michał Brodacki
62	27/09/2023	Warszawa	Mazovian Lowland	52,236	21,073	EC08	1 ♂	Michał Brodacki
63	27/09/2023	Warszawa	Mazovian Lowland	52,235	21,070	EC08	2 ♂♂	Michał Brodacki
64	27/09/2023	Warszawa	Mazovian Lowland	52,238	21,070	EC08	2 ♂♂	Michał Brodacki
65	27/09/2023	Warszawa	Mazovian Lowland	52,239	21,074	EC08	1 ♂	Michał Brodacki
66	27/09/2023	Warszawa	Mazovian Lowland	52,199	20,964	DC98	>2 ♂♂	Michał Brodacki
67	27/09/2023	Warszawa	Mazovian Lowland	52,200	20,962	DC98	2 ♂♂	Michał Brodacki
68	27/09/2023	Warszawa	Mazovian Lowland	52,200	20,962	DC98	1 ♂	Michał Brodacki
69	27/09/2023	Warszawa	Mazovian Lowland	52,202	20,961	DC98	2 ♂♂	Michał Brodacki
70	27/09/2023	Warszawa	Mazovian Lowland	52,203	20,961	DC98	1 ♂	Michał Brodacki
71	27/09/2023	Warszawa	Mazovian Lowland	52,203	20,964	DC98	1 ♂	Michał Brodacki
72	27/09/2023	Warszawa	Mazovian Lowland	52,203	20,966	DC98	~5 ♂♂	Michał Brodacki
73	28/09/2023	Warszawa	Mazovian Lowland	52,269	20,993	DC99	2 ind.	Światopełk Smoczyński
74	29/09/2023	Warszawa	Mazovian Lowland	52,299	21,095	EC09	>10 ♂♂	Michał Brodacki
75	29/09/2023	Warszawa	Mazovian Lowland	52,295	21,088	EC09	~5 ♂♂	Michał Brodacki
76	29/09/2023	Warszawa	Mazovian Lowland	52,295	21,085	EC09	>2 ♂♂	Michał Brodacki
77	29/09/2023	Warszawa	Mazovian Lowland	52,294	21,078	EC09	1 ♂	Michał Brodacki
78	29/09/2023	Warszawa	Mazovian Lowland	52,292	21,073	EC09	1 ♂	Michał Brodacki
79	29/09/2023	Warszawa	Mazovian Lowland	52,291	21,074	EC09	>2 ♂♂	Michał Brodacki
80	29/09/2023	Warszawa	Mazovian Lowland	52,282	20,986	DC99	1 ♂	Michał Brodacki
81	29/09/2023	Warszawa	Mazovian Lowland	52,280	20,981	DC99	1 ♂	Michał Brodacki
82	29/09/2023	Warszawa	Mazovian Lowland	52,276	20,949	DC99	>2 ♂♂	Michał Brodacki
83	29/09/2023	Warszawa	Mazovian Lowland	52,267	20,940	DC99	>3 ♂♂	Michał Brodacki
84	29/09/2023	Warszawa	Mazovian Lowland	52,264	20,945	DC99	2 ♂♂	Michał Brodacki
85	03/10/2023	Pruszków	Mazovian Lowland	52,166	20,802	DC87	2 ♂♂	Michał Brodacki
86	03/10/2023	Pruszków	Mazovian Lowland	52,166	20,804	DC87	1 ♂	Michał Brodacki
87	03/10/2023	Pruszków	Mazovian Lowland	52,174	20,814	DC88	~5 ♂♂	Michał Brodacki
88	03/10/2023	Pruszków	Mazovian Lowland	52,177	20,825	DC88	1 ♂	Michał Brodacki
89	03/10/2023	Pruszków	Mazovian Lowland	52,181	20,826	DC88	1 ♂	Michał Brodacki
90	03/10/2023	Piastów	Mazovian Lowland	52,183	20,830	DC88	1 ♂	Michał Brodacki
91	03/10/2023	Piastów	Mazovian Lowland	52,186	20,831	DC88	>3 ♂♂	Michał Brodacki
92	03/10/2023	Piastów	Mazovian Lowland	52,184	20,837	DC88	1 ♂	Michał Brodacki
93	03/10/2023	Raszyn	Mazovian Lowland	52,159	20,930	DC97	1 ♂	Michał Brodacki
94	06/10/2023	Warszawa	Mazovian Lowland	52,211	20,961	DC98	1 ♂	Michał Brodacki
95	06/10/2023	Warszawa	Mazovian Lowland	52,214	20,961	DC98	1 ♂	Michał Brodacki
96	06/10/2023	Warszawa	Mazovian Lowland	52,207	20,954	DC98	>5 ♂♂	Michał Brodacki
97	06/10/2023	Warszawa	Mazovian Lowland	52,202	20,961	DC98	1 ♂	Michał Brodacki
98	11/10/2023	Raszyn	Mazovian Lowland	52,159	20,924	DC97	>10 ♂♂	Michał Brodacki
99	11/10/2023	Raszyn	Mazovian Lowland	52,160	20,923	DC97	>10 ♂♂	Michał Brodacki
100	11/10/2023	Raszyn	Mazovian Lowland	52,157	20,931	DC97	~5 ♂♂, 1 ♀	Michał Brodacki
101	11/10/2023	Raszyn	Mazovian Lowland	52,159	20,931	DC97	1 ♂	Michał Brodacki
102	11/10/2023	Raszyn	Mazovian Lowland	52,160	20,929	DC97	>2 ♂♂	Michał Brodacki
103	11/10/2023	Raszyn	Mazovian Lowland	52,158	20,934	DC97	~10 ♂♂	Michał Brodacki

Phaneroptera nana – new bush-cricket in Poland

104	11/10/2023	Raszyn	Mazovian Lowland	52,158	20,933	DC97	>3 ♂♂	Michał Brodacki
105	11/10/2023	Raszyn	Mazovian Lowland	52,158	20,934	DC97	~5 ♂♂	Michał Brodacki
106	11/10/2023	Warszawa	Mazovian Lowland	52,166	21,035	EC07	1 ♂	Michał Brodacki
107	11/10/2023	Warszawa	Mazovian Lowland	52,164	21,041	EC07	1 ♂	Michał Brodacki
108	11/10/2023	Warszawa	Mazovian Lowland	52,166	21,045	EC07	4 ♂♂	Michał Brodacki
109	11/10/2023	Warszawa	Mazovian Lowland	52,172	21,040	EC08	1 ♂	Michał Brodacki
110	11/10/2023	Warszawa	Mazovian Lowland	52,179	21,036	EC08	1 ♂	Michał Brodacki
111	11/10/2023	Warszawa	Mazovian Lowland	52,181	21,033	EC08	1 ♂	Michał Brodacki
112	11/10/2023	Warszawa	Mazovian Lowland	52,193	21,032	EC08	>2 ♂♂	Michał Brodacki
113	11/10/2023	Warszawa	Mazovian Lowland	52,200	21,035	EC08	>3 ♂♂	Michał Brodacki
114	11/10/2023	Warszawa	Mazovian Lowland	52,167	21,077	EC07	~5 ♂♂, 1 ♀	Michał Brodacki
115	11/10/2023	Warszawa	Mazovian Lowland	52,165	21,076	EC07	~5 ♂♂	Michał Brodacki
116	11/10/2023	Warszawa	Mazovian Lowland	52,167	21,075	EC07	~5 ♂♂	Michał Brodacki
117	11/10/2023	Warszawa	Mazovian Lowland	52,168	21,071	EC07	~5 ♂♂	Michał Brodacki
118	12/10/2023	Warszawa	Mazovian Lowland	52,186	20,943	DC98	1 ♂	Michał Brodacki
119	12/10/2023	Warszawa	Mazovian Lowland	52,188	20,944	DC98	1 ♂	Michał Brodacki
120	12/10/2023	Warszawa	Mazovian Lowland	52,183	20,973	DC98	1 ♂	Michał Brodacki
121	12/10/2023	Warszawa	Mazovian Lowland	52,185	20,960	DC98	1 ♂	Michał Brodacki
122	12/10/2023	Warszawa	Mazovian Lowland	52,188	20,963	DC98	3 ♂♂	Michał Brodacki
123	12/10/2023	Warszawa	Mazovian Lowland	52,203	20,966	DC98	>2 ♂♂	Michał Brodacki
124	13/10/2023	Warszawa	Mazovian Lowland	52,243	20,932	DC98	>5 ♂♂	Michał Brodacki
125	20/10/2023	Warszawa	Mazovian Lowland	52,264	20,992	DC99	1 ind.	Światopełk Smoczyński
126	30/10/2023	Raszyn	Mazovian Lowland	52,159	20,925	DC97	>2 ♂♂	Michał Brodacki
127	30/10/2023	Raszyn	Mazovian Lowland	52,160	20,923	DC97	>2 ♂♂	Michał Brodacki
128	30/10/2023	Raszyn	Mazovian Lowland	52,159	20,922	DC97	1 ♂	Michał Brodacki
129	30/10/2023	Raszyn	Mazovian Lowland	52,159	20,923	DC97	1 ♂	Michał Brodacki
130	30/10/2023	Raszyn	Mazovian Lowland	52,158	20,922	DC97	1 ♂	Michał Brodacki
131	30/10/2023	Raszyn	Mazovian Lowland	52,159	20,931	DC97	1 ♂	Michał Brodacki
132	30/10/2023	Raszyn	Mazovian Lowland	52,158	20,933	DC97	>2 ♂♂	Michał Brodacki
133	30/10/2023	Raszyn	Mazovian Lowland	52,158	20,933	DC97	>2 ♂♂	Michał Brodacki
134	30/10/2023	Raszyn	Mazovian Lowland	52,159	20,933	DC97	1 ♂	Michał Brodacki
135	30/10/2023	Raszyn	Mazovian Lowland	52,159	20,935	DC97	1 ♂	Michał Brodacki
136	10/11/2023	Warszawa	Mazovian Lowland	52,250	21,009	EC08	1 ♀	Marcin Radzi-kowski, Rafał Szulc
137	14/07/2024	Warszawa	Mazovian Lowland	52,203	20,966	DC98	~5 ♂♂	Michał Brodacki
138	14/07/2024	Warszawa	Mazovian Lowland	52,199	20,962	DC98	1 ♂	Michał Brodacki
139	14/07/2024	Warszawa	Mazovian Lowland	52,198	20,963	DC98	1 ♂	Michał Brodacki
140	14/07/2024	Warszawa	Mazovian Lowland	52,202	20,955	DC98	1 ♂	Michał Brodacki
141	26/07/2024	Warszawa	Mazovian Lowland	52,209	20,962	DC98	1 ♂	Michał Brodacki
142	26/07/2024	Warszawa	Mazovian Lowland	52,211	20,959	DC98	~5 ♂♂	Michał Brodacki
143	26/07/2024	Warszawa	Mazovian Lowland	52,204	20,955	DC98	~5 ♂♂	Michał Brodacki
144	26/07/2024	Warszawa	Mazovian Lowland	52,202	20,955	DC98	~5 ♂♂	Michał Brodacki
145	26/07/2024	Warszawa	Mazovian Lowland	52,203	20,952	DC98	>10 ♂♂	Michał Brodacki
146	26/07/2024	Warszawa	Mazovian Lowland	52,203	20,949	DC98	~5 ♂♂	Michał Brodacki
147	26/07/2024	Warszawa	Mazovian Lowland	52,202	20,963	DC98	1 ♂	Michał Brodacki
148	26/07/2024	Warszawa	Mazovian Lowland	52,203	20,966	DC98	~5 ♂♂	Michał Brodacki
149	03/08/2024	Warszawa	Mazovian Lowland	52,200	20,964	DC98	1 ♂	Michał Brodacki
150	03/08/2024	Warszawa	Mazovian Lowland	52,199	20,963	DC98	1 ♂	Michał Brodacki

No.	Date DD/MM/ YYYY	Location	KFP region (Tykarski 2010)	Latitude (°N)	Longitude (°E)	UTM	Details	Author(s)
Mazowieckie								
151	03/08/2024	Warszawa	Mazovian Lowland	52,198	20,963	DC98	~5 ♂♂	Michał Brodacki
152	03/08/2024	Warszawa	Mazovian Lowland	52,200	20,961	DC98	1 ♂	Michał Brodacki
153	03/08/2024	Warszawa	Mazovian Lowland	52,200	20,962	DC98	1 ♂	Michał Brodacki
154	03/08/2024	Warszawa	Mazovian Lowland	52,200	20,958	DC98	1 ♂	Michał Brodacki
155	03/08/2024	Warszawa	Mazovian Lowland	52,202	20,954	DC98	1 ♂	Michał Brodacki
156	03/08/2024	Warszawa	Mazovian Lowland	52,201	20,951	DC98	~5 ♂♂	Michał Brodacki
157	03/08/2024	Warszawa	Mazovian Lowland	52,200	20,954	DC98	1 ♂	Michał Brodacki
158	03/08/2024	Warszawa	Mazovian Lowland	52,201	20,948	DC98	~5 ♂♂	Michał Brodacki
159	03/08/2024	Warszawa	Mazovian Lowland	52,199	20,955	DC98	>10 ♂♂	Michał Brodacki
160	03/08/2024	Warszawa	Mazovian Lowland	52,203	20,966	DC98	~5 ♂♂	Michał Brodacki
161	06/08/2024	Piastów	Mazovian Lowland	52,176	20,843	DC88	1 ♂	Maciej Boenisch
162	20/08/2024	Warszawa	Mazovian Lowland	52,206	20,963	DC98	~5 ♂♂	Michał Brodacki
163	20/08/2024	Warszawa	Mazovian Lowland	52,204	20,959	DC98	~5 ♂♂	Michał Brodacki
164	20/08/2024	Warszawa	Mazovian Lowland	52,207	20,956	DC98	~5 ♂♂	Michał Brodacki
165	23/08/2024	Warszawa	Mazovian Lowland	52,204	20,957	DC98	~5 ♂♂	Michał Brodacki
166	23/08/2024	Warszawa	Mazovian Lowland	52,204	20,958	DC98	~5 ♂♂	Michał Brodacki
167	23/08/2024	Warszawa	Mazovian Lowland	52,213	20,961	DC98	~5 ♂♂	Michał Brodacki
168	27/08/2024	Warszawa	Mazovian Lowland	52,202	20,959	DC98	~5 ♂♂	Michał Brodacki
169	27/08/2024	Warszawa	Mazovian Lowland	52,203	20,952	DC98	~5 ♂♂	Michał Brodacki
170	27/08/2024	Warszawa	Mazovian Lowland	52,201	20,948	DC98	~5 ♂♂	Michał Brodacki
171	28/08/2024	Warszawa	Mazovian Lowland	52,234	20,890	DC98	1 ♂	Michał Brodacki
172	28/08/2024	Warszawa	Mazovian Lowland	52,232	20,892	DC98	~5 ♂♂	Michał Brodacki
173	28/08/2024	Warszawa	Mazovian Lowland	52,232	20,896	DC98	1 ♂	Michał Brodacki
174	30/08/2024	Warszawa	Mazovian Lowland	52,221	21,136	EC08	>10 ♂♂	Michał Brodacki
175	30/08/2024	Warszawa	Mazovian Lowland	52,218	21,134	EC08	~5 ♂♂	Michał Brodacki
176	30/08/2024	Warszawa	Mazovian Lowland	52,214	21,130	EC08	~5 ♂♂	Michał Brodacki
177	30/08/2024	Warszawa	Mazovian Lowland	52,215	21,118	EC08	1 ♂	Michał Brodacki
178	30/08/2024	Warszawa	Mazovian Lowland	52,215	21,114	EC08	1 ♂	Michał Brodacki
179	30/08/2024	Warszawa	Mazovian Lowland	52,215	21,110	EC08	1 ♂	Michał Brodacki
180	30/08/2024	Warszawa	Mazovian Lowland	52,228	21,075	EC08	1 ♂	Michał Brodacki
181	01/09/2024	Warszawa	Mazovian Lowland	52,203	20,966	DC98	~5 ♂♂	Michał Brodacki
182	04/09/2024	Warszawa	Mazovian Lowland	52,193	20,974	DC98	1 ♂	Michał Brodacki
183	04/09/2024	Warszawa	Mazovian Lowland	52,194	20,969	DC98	2 ♂♂	Michał Brodacki
184	04/09/2024	Warszawa	Mazovian Lowland	52,199	20,966	DC98	1 ♂	Michał Brodacki
185	04/09/2024	Warszawa	Mazovian Lowland	52,195	20,974	DC98	2 ♂♂	Michał Brodacki
186	04/09/2024	Warszawa	Mazovian Lowland	52,195	20,987	DC98	1 ♂	Michał Brodacki
187	08/09/2024	Warszawa	Mazovian Lowland	52,200	20,963	DC98	1 ♂	Michał Brodacki
188	08/09/2024	Warszawa	Mazovian Lowland	52,198	20,959	DC98	~5 ♂♂	Michał Brodacki
189	08/09/2024	Warszawa	Mazovian Lowland	52,201	20,947	DC98	~5 ♂♂	Michał Brodacki
190	08/09/2024	Warszawa	Mazovian Lowland	52,198	20,963	DC98	~5 ♂♂	Michał Brodacki
191	08/09/2024	Warszawa	Mazovian Lowland	52,200	20,961	DC98	~5 ♂♂	Michał Brodacki
192	08/09/2024	Warszawa	Mazovian Lowland	52,202	20,964	DC98	~5 ♂♂	Michał Brodacki
193	08/09/2024	Warszawa	Mazovian Lowland	52,203	20,966	DC98	~5 ♂♂	Michał Brodacki
194	09/09/2024	Warszawa	Mazovian Lowland	52,200	20,953	DC98	4 ♂♂	Michał Brodacki
195	09/09/2024	Warszawa	Mazovian Lowland	52,201	20,947	DC98	1 ♂, 1 ♀	Michał Brodacki
196	09/09/2024	Warszawa	Mazovian Lowland	52,201	20,948	DC98	~5 ♂♂	Michał Brodacki
197	09/09/2024	Warszawa	Mazovian Lowland	52,203	20,952	DC98	1 ♂	Michał Brodacki

Phaneroptera nana – new bush-cricket in Poland

198	09/09/2024	Warszawa	Mazovian Lowland	52,203	20,952	DC98	~5 ♂♂	Michał Brodacki
199	11/09/2024	Warszawa	Mazovian Lowland	52,205	20,965	DC98	1 ♂	Michał Brodacki
200	11/09/2024	Warszawa	Mazovian Lowland	52,207	20,964	DC98	1 ♂	Michał Brodacki
201	11/09/2024	Warszawa	Mazovian Lowland	52,207	20,963	DC98	1 ♂	Michał Brodacki
202	11/09/2024	Warszawa	Mazovian Lowland	52,202	20,958	DC98	1 ♂	Michał Brodacki
203	11/09/2024	Warszawa	Mazovian Lowland	52,203	20,952	DC98	>10 ♂♂	Michał Brodacki
204	11/09/2024	Warszawa	Mazovian Lowland	52,202	20,951	DC98	1 ♂	Michał Brodacki
205	11/09/2024	Warszawa	Mazovian Lowland	52,200	20,952	DC98	~5 ♂♂	Michał Brodacki
206	13/09/2024	Warszawa	Mazovian Lowland	52,329	20,960	DC99	1 ♀	Iwona Dembiec
207	17/09/2024	Warszawa	Mazovian Lowland	52,246	20,988	DC98	1 ♀	Edgar Kmiołek
208	18/09/2024	Warszawa	Mazovian Lowland	52,187	20,987	DC98	~5 ♂♂	Michał Brodacki
209	18/09/2024	Warszawa	Mazovian Lowland	52,193	20,991	DC98	1 ♂	Michał Brodacki
210	21/09/2024	Warszawa	Mazovian Lowland	52,209	20,955	DC98	1 ♂	Michał Brodacki
211	21/09/2024	Warszawa	Mazovian Lowland	52,203	20,956	DC98	1 ♂	Michał Brodacki
212	21/09/2024	Warszawa	Mazovian Lowland	52,206	20,956	DC98	1 ♂	Michał Brodacki
213	23/09/2024	Koczargi Stare	Mazovian Lowland	52,264	20,794	DC89	1 ♂	Michał Brodacki
214	23/09/2024	Koczargi Stare	Mazovian Lowland	52,263	20,796	DC89	1 ♂	Michał Brodacki
215	23/09/2024	Koczargi Stare	Mazovian Lowland	52,265	20,798	DC89	1 ♂	Michał Brodacki
216	23/09/2024	Koczargi Stare	Mazovian Lowland	52,269	20,798	DC89	1 ♂	Michał Brodacki
217	23/09/2024	Koczargi Stare	Mazovian Lowland	52,270	20,800	DC89	1 ♂	Michał Brodacki
218	23/09/2024	Koczargi Stare	Mazovian Lowland	52,271	20,801	DC89	1 ♂	Michał Brodacki
219	23/09/2024	Lipków	Mazovian Lowland	52,273	20,808	DC89	1 ♂	Michał Brodacki
220	08/10/2024	Warszawa	Mazovian Lowland	52,254	20,911	DC98	1 ♂	Julia Kowalska
221	08/10/2024	Warszawa	Mazovian Lowland	52,164	21,221	EC17	1 ♂	Michał Brodacki
222	08/10/2024	Warszawa	Mazovian Lowland	52,164	21,219	EC17	1 ♂	Michał Brodacki
223	08/10/2024	Warszawa	Mazovian Lowland	52,163	21,219	EC17	1 ♂	Michał Brodacki
224	08/10/2024	Warszawa	Mazovian Lowland	52,201	21,171	EC18	1 ♂	Michał Brodacki
225	08/10/2024	Warszawa	Mazovian Lowland	52,201	21,169	EC18	1 ♂	Michał Brodacki
226	10/10/2024	Warszawa	Mazovian Lowland	52,260	21,162	EC18	1 ♂	Michał Brodacki
227	10/10/2024	Warszawa	Mazovian Lowland	52,262	21,165	EC19	2 ♂♂	Michał Brodacki
228	10/10/2024	Warszawa	Mazovian Lowland	52,265	21,169	EC19	3 ♂♂	Michał Brodacki
229	17/10/2024	Warszawa	Mazovian Lowland	52,296	21,053	EC09	1 ♀	Rafał Rzepkowski
230	27/10/2024	Warszawa	Mazovian Lowland	52,200	20,951	DC98	~5 ♂♂	Michał Brodacki
231	27/10/2024	Warszawa	Mazovian Lowland	52,203	20,948	DC98	1 ♂	Michał Brodacki
232	27/10/2024	Warszawa	Mazovian Lowland	52,203	20,952	DC98	~5 ♂♂	Michał Brodacki
233	27/10/2024	Warszawa	Mazovian Lowland	52,202	20,956	DC98	1 ♂	Michał Brodacki
234	27/10/2024	Warszawa	Mazovian Lowland	52,202	20,961	DC98	1 ♂	Michał Brodacki
235	27/10/2024	Warszawa	Mazovian Lowland	52,203	20,966	DC98	1 ♂	Michał Brodacki
Opolskie								
236	29/08/2024	Opole	Lower Silesia	50,668	17,881	YS01	1 ♂	Michał Zawadzki
237	31/08/2024	Gogolin	Lower Silesia	50,493	18,009	BA89	4 ♂♂	Sebastian Czeczor, Monika Pastrykiewicz

No.	Date DD/MM/ YYYY	Location	KFP region (Tykarski 2010)	Latitude (°N)	Longitude (°E)	UTM	Details	Author(s)
Opolskie								
238	31/08/2024	Gogolin	Lower Silesia	50,495	18,011	BA89	5 ♂♂	Sebastian Czeczor
239	07/09/2024	Gogolin	Lower Silesia	50,492	18,020	BA89	~5 ind.	Olaf Sobota
Podkarpackie								
240	19/08/2022	Posada Zarszyńska	Eastern Beskidy Mts	49,562	22,027	EV79	1 ♂	Piotr Guzik, Wojciech Guzik
241	16/09/2023	Rymanów	Eastern Beskidy Mts	49,573	21,872	EV69	~5 ♂♂, 1 ♀	Piotr Guzik
242	16/09/2023	Rymanów	Eastern Beskidy Mts	49,574	21,872	EV69	~5 ♂♂	Piotr Guzik
243	16/09/2023	Rymanów	Eastern Beskidy Mts	49,576	21,871	EV69	~5 ♂♂	Piotr Guzik
244	16/09/2023	Łężany	Eastern Beskidy Mts	49,645	21,813	EV59	~5 ♂♂	Piotr Guzik
245	20/09/2023	Boguchwała	Eastern Beskidy Mts	49,982	21,939	EA63	~10 ♂♂, 2 ♀♀	Wojciech Guzik, Tymoteusz Mazurkiewicz
246	20/09/2023	Lutoryż	Eastern Beskidy Mts	49,974	21,928	EA63	1 ♂	Wojciech Guzik, Tymoteusz Mazurkiewicz
247	20/09/2023	Lutoryż	Eastern Beskidy Mts	49,965	21,922	EA63	1 ♂	Wojciech Guzik, Tymoteusz Mazurkiewicz
248	20/09/2023	Rzeszów	Eastern Beskidy Mts	49,966	21,976	EA63	1 ♂	Wojciech Guzik, Tymoteusz Mazurkiewicz
249	20/09/2023	Rzeszów	Eastern Beskidy Mts	49,966	21,996	EA73	2-3 ♂♂	Wojciech Guzik, Tymoteusz Mazurkiewicz
250	21/09/2023	Zboiska	Eastern Beskidy Mts	49,574	21,701	EV59	2 ♂♂	Wojciech Guzik
251	21/09/2023	Krosno	Eastern Beskidy Mts	49,667	21,762	EA50	1 ♂	Wojciech Guzik
252	21/09/2023	Krosno	Eastern Beskidy Mts	49,666	21,761	EA50	1 ♂	Wojciech Guzik
253	21/09/2023	Krosno	Eastern Beskidy Mts	49,663	21,759	EA50	2-3 ♂♂	Wojciech Guzik
254	21/09/2023	Krosno	Eastern Beskidy Mts	49,662	21,759	EA50	2-3 ♂♂	Wojciech Guzik
255	21/09/2023	Krosno	Eastern Beskidy Mts	49,660	21,761	EA50	2-3 ♂♂	Wojciech Guzik
256	21/09/2023	Krosno	Eastern Beskidy Mts	49,662	21,764	EA50	1 ♂	Wojciech Guzik
257	21/09/2023	Krosno	Eastern Beskidy Mts	49,665	21,765	EA50	1 ♂	Wojciech Guzik
258	21/09/2023	Krosno	Eastern Beskidy Mts	49,668	21,768	EA50	2 ♂♂	Wojciech Guzik
259	22/09/2023	Wrocanka	Eastern Beskidy Mts	49,641	21,747	EV59	2-3 ♂♂	Piotr Guzik
260	23/09/2023	Miejsce Piastowe	Eastern Beskidy Mts	49,633	21,785	EV59	1 ♂	Piotr Guzik
261	23/09/2023	Wrocanka	Eastern Beskidy Mts	49,636	21,758	EV59	2 ♂♂	Piotr Guzik
262	23/09/2023	Miejsce Piastowe	Eastern Beskidy Mts	49,633	21,782	EV59	>2 ♂♂	Piotr Guzik
263	23/09/2023	Haczów	Eastern Beskidy Mts	49,663	21,904	EA60	3-4 ♂♂	Piotr Guzik
264	23/09/2023	Sanoczek	Eastern Beskidy Mts	49,550	22,141	EV88	2-3 ♂♂	Piotr Guzik
265	23/09/2023	Pobiedno	Eastern Beskidy Mts	49,528	22,100	EV78	2-3 ♂♂	Piotr Guzik
266	23/09/2023	Posada Zarszyńska	Eastern Beskidy Mts	49,579	22,012	EV79	2-3 ♂♂	Piotr Guzik
267	25/09/2023	Twierdza	Eastern Beskidy Mts	49,829	21,618	EA41	1 ♂	Wojciech Guzik
268	25/09/2023	Frysztak	Eastern Beskidy Mts	49,835	21,608	EA42	1 ♂	Wojciech Guzik
269	25/09/2023	Pilzno	Eastern Beskidy Mts	49,979	21,293	EA23	1 ♂	Wojciech Guzik

270	26/09/2023	Nowy Żmigród	Eastern Beskidy Mts	49,607	21,525	EV39	~5 ♂♂	Piotr Guzik
271	26/09/2023	Zarzecze	Eastern Beskidy Mts	49,673	21,483	EA30	2-3 ♂♂	Piotr Guzik
272	26/09/2023	Zręcin	Eastern Beskidy Mts	49,665	21,691	EA40	2-3 ♂♂	Piotr Guzik
273	29/09/2023	Zawadka Rymanowska	Eastern Beskidy Mts	49,520	21,749	EV58	1 ♂	Piotr Guzik
274	07/10/2023	Kobylany	Eastern Beskidy Mts	49,608	21,645	EV49	2-3 ♂♂, 1 ♀	Piotr Guzik
275	07/10/2023	Zręcin	Eastern Beskidy Mts	49,665	21,691	EA40	>5 ♂♂	Piotr Guzik
276	14/10/2023	Jaśliska	Eastern Beskidy Mts	49,437	21,799	EV57	2-3 ♂♂	Piotr Guzik, Tomasz Guzik
277	14/10/2023	Czeremcha	Eastern Beskidy Mts	49,393	21,778	EV57	1 ♂	Piotr Guzik, Tomasz Guzik
278	20/10/2023	Wrocanka	Eastern Beskidy Mts	49,625	21,736	EV59	2-3 ♂♂	Piotr Guzik
279	20/10/2023	Wrocanka	Eastern Beskidy Mts	49,625	21,736	EV59	1 ♂	Piotr Guzik
280	20/10/2023	Wrocanka	Eastern Beskidy Mts	49,628	21,736	EV59	2-3 ♂♂	Piotr Guzik
281	20/10/2023	Wrocanka	Eastern Beskidy Mts	49,629	21,736	EV59	1 ♂	Piotr Guzik
282	20/10/2023	Niżna Łąka	Eastern Beskidy Mts	49,629	21,732	EV59	1 ♂	Piotr Guzik
283	20/10/2023	Niżna Łąka	Eastern Beskidy Mts	49,624	21,731	EV59	1 ♂	Piotr Guzik
284	01/11/2023	Krosno	Eastern Beskidy Mts	49,679	21,769	EA50	1-2 ♂♂	Piotr Guzik, Natalia Guzik, Tomasz Guzik
285	04/08/2024	Krosno	Eastern Beskidy Mts	49,691	21,767	EA50	~5 ♂♂	Piotr Guzik
286	04/08/2024	Krosno	Eastern Beskidy Mts	49,692	21,765	EA50	~5 ♂♂	Piotr Guzik
287	12/08/2024	Długie	Eastern Beskidy Mts	49,578	22,044	EV79	1-2 ♂♂	Piotr Guzik
288	12/08/2024	Zarszyn	Eastern Beskidy Mts	49,583	22,015	EV79	2-3 ♂♂	Piotr Guzik
289	14/08/2024	Glinik Górny	Eastern Beskidy Mts	49,849	21,537	EA32	1 ♂	Wojciech Guzik
290	14/08/2024	Gogołów	Eastern Beskidy Mts	49,859	21,483	EA32	1 ♂	Wojciech Guzik
291	16/08/2024	Jasło	Eastern Beskidy Mts	49,740	21,484	EA30	1 ♂	Piotr Guzik, Wojciech Guzik
292	16/08/2024	Tarnowiec	Eastern Beskidy Mts	49,729	21,575	EA40	~5 ♂♂	Piotr Guzik, Wojciech Guzik
293	16/08/2024	Wrocanka	Eastern Beskidy Mts	49,718	21,581	EA40	1 ♂	Piotr Guzik, Wojciech Guzik
294	16/08/2024	Wrocanka	Eastern Beskidy Mts	49,713	21,592	EA40	2-3 ♂♂	Piotr Guzik, Wojciech Guzik
295	16/08/2024	Jedlicze	Eastern Beskidy Mts	49,707	21,656	EA40	1 ♂	Piotr Guzik, Wojciech Guzik
296	16/08/2024	Dobieszyn	Eastern Beskidy Mts	49,700	21,677	EA40	1 ♂	Piotr Guzik, Wojciech Guzik
297	19/08/2024	Rogi	Eastern Beskidy Mts	49,606	21,735	EV59	1-2 ♂♂	Piotr Guzik
298	21/08/2024	Jasło	Eastern Beskidy Mts	49,756	21,473	EA31	~5 ♂♂	Piotr Guzik
299	28/08/2024	Tarnobrzeg	Sandomierska Lowland	50,606	21,708	EB50	~5 ♂♂	Kuba Osowski
300	08/09/2024	Rymanów	Eastern Beskidy Mts	49,573	21,874	EV69	~5 ind.	Piotr Guzik
301	08/09/2024	Miejsce Piastowe	Eastern Beskidy Mts	49,634	21,787	EV59	~5 ♂♂	Piotr Guzik
302	08/09/2024	Miejsce Piastowe	Eastern Beskidy Mts	49,634	21,787	EV59	~5 ♂♂	Piotr Guzik
303	08/09/2024	Sieniawa	Eastern Beskidy Mts	49,565	21,923	EV69	2-3 ♂♂	Piotr Guzik
304	08/09/2024	Odrzechowa	Eastern Beskidy Mts	49,541	21,966	EV68	~5 ♂♂	Piotr Guzik

No.	Date DD/MM/ YYYY	Location	KFP region (Tykarski 2010)	Latitude (°N)	Longitude (°E)	UTM	Details	Author(s)
Podkarpackie								
305	08/09/2024	Odrzechowa	Eastern Beskidy Mts	49,541	21,968	EV78	~5 ♂♂	Piotr Guzik
306	23/09/2024	Krosno	Eastern Beskidy Mts	49,698	21,771	EA50	~5 ♂♂	Piotr Guzik, Natalia Guzik
307	23/09/2024	Krosno	Eastern Beskidy Mts	49,697	21,773	EA50	2-3 ♂♂	Piotr Guzik
308	23/09/2024	Krosno	Eastern Beskidy Mts	49,688	21,769	EA50	1-2 ♂♂	Piotr Guzik
309	23/09/2024	Krosno	Eastern Beskidy Mts	49,687	21,766	EA50	~5 ♂♂	Piotr Guzik
310	23/09/2024	Krosno	Eastern Beskidy Mts	49,683	21,765	EA50	1-2 ♂♂	Piotr Guzik
311	23/09/2024	Krosno	Eastern Beskidy Mts	49,678	21,768	EA50	2-3 ♂♂	Piotr Guzik
312	23/09/2024	Krosno	Eastern Beskidy Mts	49,671	21,763	EA50	2-3 ♂♂	Piotr Guzik
313	23/09/2024	Głowienka	Eastern Beskidy Mts	49,660	21,752	EA50	2-3 ♂♂	Piotr Guzik
314	23/09/2024	Krosno	Eastern Beskidy Mts	49,670	21,762	EA50	2-3 ♂♂	Piotr Guzik
315	23/09/2024	Wrocanka	Eastern Beskidy Mts	49,641	21,747	EV59	2-3 ♂♂	Piotr Guzik
316	23/09/2024	Głowienka	Eastern Beskidy Mts	49,654	21,753	EA50	1-2 ♂♂	Piotr Guzik
Wielkopolskie								
317	31/10/2024	Tarnowo Podgórne	Wielkopolsko-Ku- jawaska Lowland	52,465	16,662	XU11	1 ind.	Elżbieta Wasyłków