Hemaris croatica (Lepidoptera: Sphingidae) in the Rostov-on-Don Region (South Russia)

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Samenvatting. *Hemaris croatica* (Lepidoptera: Sphingidae) in de streek van Rostov-aan-de-Don (Zuid-Rusland)
De enige vermelding uit de streek Rostov-aan-de-Don van *Hemaris croatica* (Esper, 1800) tot nu toe stamt van Alpheraky (1876) die op 05 juni 1872 een exemplaar waarnam in de steppe bij Taganrog. De meest nabije populaties werden gevonden in het zuidoosten van de Krim, en in de streken van Lugansk en Donezk in de Oekraïne. Pittaway (1993) vermeldt enkele uitgestorven populaties dichtbij de Wolga. De auteurs ontdekten drie lokale populaties in het zuidwesten van Rostov-aan-de-Don.

Résumé. *Hemaris croatica* (Lepidoptera: Sphingidae) dans la région de Rostov-sur-le-Don (Russie méridionale)
La seule mention de *Hemaris croatica* (Esper, 1800) dans la région de Rostov-sur-Don est de Alpheraky (1876) qui observait un exemplaire le 05 juin 1872 dans les steppes de Taganrog. Les populations les plus proches sont situées dans le sud-est du Krym en dans les régions de Lugansk et Donezk en Oukraine. Pittaway (1993) mentionne quelques populations extinctes dans la vallée de la Wolga. Les auteurs ont découvert trois populations locales dans le sud-ouest de Rostov-sur-Don.

Key words: *Hemaris croatica* – Roston-on-Don – faunistics.

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The Olive Bee Hawkmoth, *Hemaris croatica* (Esper, 1800), was reported from the Rostov-on-Don region by only one investigator. It was in the steppe near the town of Taganrog. One specimen was caught there by S. N. Alpheraky in the 19th century (05/06/1872) (Alpheraky 1876). The most nearby populations of *Hemaris croatica* were found on the southeast side of the Crimea peninsula, in the Lugansk and Donezk regions of the Ukraine (Efetov & Budashkin 1990). A. R. Pittaway (1993) also reported a few extinct populations of *H. croatica* in the Wolga River Region.

During the last decade of the 20th century and the beginning of the 21st century we studied intensively the Lepidoptera fauna in the southwestern part of the Rostov-on-Don region. In July 2003 we found three local populations of the *Hemaris croatica*.

Material. Yasinovka River, 2 km east of the village Kulbakovo: 19–22.07.2003, 15 ex., 24.08.2003, 1 ex.; village Lisogorka: 17.08.2003, 1 ex.; Grekovo-Uljanovka, 19.07.2003, 1 ex.

The distances between these localities vary from 10 to 20 km. Yasinovka River belongs to the Myus-River Basin which brings its waters to the Azov Sea. Lisogorka and Grekovo-Uljanovka are situated on the right bank of the Tuzlov River Valley. This river is the right tributary of the Don River – the main river of the region. The Myus River Valley has an orientation to the south, the Tuzlov

River Valley to the southeast. The Kulbakovo and Lisogorka are the two nearest localities of these great valleys in the southwest of the Rostov-on-Don region.

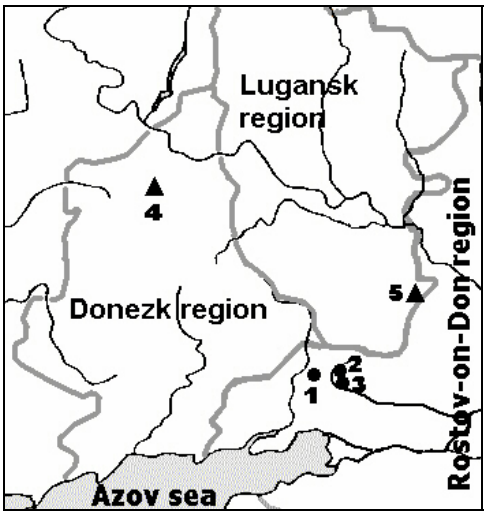

Figure 1: Localities in the Rostov-on-Don region where *Hemaris croatica* has been observed: 1.– Yasinovka, 2.– Lisogorka, 3.– Grekovo-Uljanovka, 4.– Kramatorsk in Donezk region, 5.– Provalskaja steppe in Lugansk region

Biotopes. Calcipetrile slopes of the steppe riverbanks with calciphyte vegetation. The total area in Kulbakovo is 10 hectares, in Lisogorka 40 hectares. Dominant plants are: *Thymus calcareus* Klok. et Shost., *Cephalaria uralensis* (Murr.) Schrad ex Roem. et Schubt., *Theucrium polium* L., *Jurinea staechadifolia* (Bieb.) DC., *Reseda lutea* L., *Gypsophila altissima* L., *Pimpinella titanophila* Woronow, *Campanula sibirica* L., *Onosma tanaitica* Klok., *Ephedra distachya* L., *Euphorbia petrophila* C. A. Mey.

In the Don River Basin, at the southern limits of Russia, there are many similar plant formations. Special studies, which have been undertaken by botanists of the Rostov-on-Don State University, show the wide scale of dominant plant associations. This also reflects the specific limestone substrates that are covered by vegetation in each local district (Abramova 1973).

There are also exploited chalk deposits in the Kulbakovo and Lisogorka regions. They are the smallest and the most southern in the region. The big clasters of chalk deposits are located in the north-east of Lisogorka at least 250 km, 300 km, and 500 km; on the following rivers: Don, North Donetz, Hoper, Medveditsa and Ilovlja. However, there are no reports of any *Hemaris croatica* being caught in those places.

Figure 2. *Hemaris croatica* (Esper, 1800): Rostov-on-Don region, Kuibyshevo district, Yasinovka River valley, 22.07.2003 (leg. A. N. Poltavsky).

Figure 3. Calcipetrile slopes of the Yasinovka Valley in August. Blossom of *Cephalaria uralensis*.

Moths behaviour. The adult moths were observed during midday in July visiting the flowers of *Jurinea*, and in August the flowers of *Cephalaria*. It appears that they prefer places with vegetation that is mostly scattered and on poor chalky soil with marl. No hawkmoths were observed on the flat calciphyte steppe plateau above the slope, where more dense associations of *Jurinea* and *Cephalaria* occur. Both in July and August most moths appeared to be rather shabby and probably represented the second brood.

We did not find any caterpillars on *Cephalaria*, but in the soil under the roots of this plant on the Yasinovka slope two specific exuvia of a *Hemaris* species were dug out. So, it appears that three very local aboriginal populations of *Hemaris croatica* were found in southern Russia.

References

Abramova, T. I., 1973. Vegetation of Cretaceous Barings in the Steppe part of the Don River Basin in the Rostov and Volgograd regions. — *Botanical Journal* **58**(4): 562–570. (In Russian).

Alpheraky, S. N., 1876. Lepidoptera of the Taganrog Environs. — *Annales of the Russian Entomological Society*, St. Peterburg, **8**(2–3): 150–226. (In Russian).

Efetov, K. A. & Budashkin, Y. I., 1990. *Butterflies of the Crimea*. — Simferopol, 112 p. (In Russian).

Pittaway, A. R., 1993. *The Hawkmoths of the Western Palaearctic*. — London & Colchester, 240 p.