

DISCOVERY OF *ACHERONTIA ATROPOS* L. (LEPIDOPTERA, SPHINGIDAE)
IN NORTH-EAST KAZAKHSTANV.V. Dubatolov¹, S.V. Titov²[Дубатолов В.В., Титов С.В. Обнаружение *Acherontia atropos* L. (Lepidoptera, Sphingidae) в Северо-Восточном Казахстане]¹Siberian Zoological Museum, Institute of Systematics and Ecology of Animals, Siberian Branch of Russian Academy of Sciences, Frunze str. 11, Novosibirsk 630091 Russia. E-mail: vvdubat@mail.ru¹Сибирский зоологический музей, Институт систематики и экологии животных СО РАН, ул. Фрунзе 11, Новосибирск 630091 Россия. E-mail: vvdubat@mail.ru²Павлодарский государственный университет им. С. Торайгырова, Научно-исследовательский экологический центр «Мониторинг», ул. Ломова, 64, г. Павлодар, KZ-140008, Республика Казахстан, E-mail: titovs80@mail.ru²The Research Centre for Environmental "Monitoring", Pavlodar State University named after S. Toraigyrov, Lomova street, 64, KZ-140008, Pavlodar, Kazakhstan. E-mail: titovs80@mail.ru**Ключевые слова:** *Sphingidae*, *Acherontia atropos*, Казахстан**Key words:** *Sphingidae*, *Acherontia atropos*, Kazakhstan

Summary. The first reliable record of *Acherontia atropos* L. east from Ural mts. is reported from North-East Kazakhstan, Pavlodar suburbs. The moth was collected on September, 15, 2006. Up to present the species was not known to range east from North-Eastern Iran and Turkmenistan. In eastern countries a sibling species occurs, *A. styx* Wstw. In South-Western Asia both species occur together. They differ most noticeably by the double (in *A. styx* Wstw.) versus single (in *A. atropos* L.) dark postdiscal band on the hindwing underside. Dark transversal bands at the underside of abdomen are well visible and broad in *A. atropos* L. and nearly absent in *A. styx* Wstw.

Резюме. Приводится единственная достоверная находка *Acherontia atropos* L. к востоку от Урала – в Северо-Восточном Казахстане из окрестностей Павлодара. Бабочка была собрана 15 сентября 2006 г. В настоящее время вид не известен восточнее Северо-Восточного Ирана и Туркменистана; восточнее его замещает близкий вид – *A. styx* Wstw., в Юго-Западной Азии оба вида обитают совместно. Различить их проще по рисунку нижней стороны задних крыльев – тёмная постдискальная перевязь одинарная у *A. atropos* L. и двойная у *A. styx* Wstw. Чёрные поперечные полосы на нижней стороне брюшка хорошо выражены у *A. atropos* L. и редуцированы у *A. styx* Wstw.

Acherontia atropos (Linnaeus, 1758) is widely distributed throughout the Afrotropics, Southern Europe and South-Western Asia. The north-easternmost localities are known from North-Eastern Iran and Turkmenistan [Danner, Eitschberger, Surholt, 1998; Pittaway, 2010]. In Europe, solitary vagrant specimens have been recorded from northern countries; for example, in European Russia from Kola Peninsula [Kozlov, Jalava, 1994], southern and middle regions of Komi Republic: Ukhta, Ob'yachevo, Letki [Tatarinov, Sedykh, Dolgin, 2003]. In Siberia, there were records from Tyumen Province [Sitnikov, 2009] only; but the author informed us (pers. comm.) that there was only verbal information not confirmed by any specimen. In Eastern Asia, it was reported once from Hainan, but the species is not a resident in this region [Pittaway, Kitching, 2010].

In southern regions of Asia, another sibling species occurs, *A. styx* Westwood, 1847. It is distributed from South-Western Asia east to Japan, Philippines, Sulawesi and Lesser Sunda Islands. In the Near East, Arabian Peninsula and Iran both species occur together. So, all *Acherontia* records from Siberia that were not confirmed by specimens might belong not to *A. atropos* L., but to *A. styx* Wstw. because Siberia, even its western regions, is situated northerly from the range of *A. styx* Wstw., and considerably north-easterly from *A. atropos* L. north-easternmost localities (Iran and South Turkmenistan).

A. atropos L. and *A. styx* Wstw. are very similar species in the wing pattern. However, *A. styx* Wstw. differs in having two medial bands on the underside of the forewing, instead of one, and usually no dark bands across the ventral

surface of the abdomen; the skull-like marking is darker and there is a faint blue tornal dot enclosed by a black submarginal band on the hindwing upperside; the forewing discal spot (stigma) is orange; in *A. atropos* it is usually white [Pittaway, Kitching, 2010].

In 2006, September, 15, one male specimen of *Acherontia atropos* L. was collected at a potato field near Leninskiy settlement in Pavlodar suburbs, North-East Kazakhstan. The specimen is now deposited in the collection of Pavlodar State University and is depicted here (col. pl. V: 1-2). All characters of this specimen show that it belongs to *A. atropos* L., and not to *A. styx* Wstw.: it has one medial band on the underside of the forewing, clear dark bands across the ventral surface of the abdomen, a light skull-like marking, no blue tornal dot enclosed by a black submarginal band on the hindwing upperside, the forewing discal spot (stigma) being whitish.

So, it should be stated that this is the north-easternmost record of *A. atropos* L., and the single one east from Ural Mts.

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COLOR PLATE V

ЦВЕТНАЯ ТАБЛИЦА V



1-2 – *Acherontia atropos* (Linnaeus, 1758); Kazakhstan, Pavlodar suburbs, Leninskii settlement, 15.09.2006, Karibaev leg. 1 – upperside, 2 – underside.

1-2 – *Acherontia atropos* (Linnaeus, 1758); Казахстан, окрестности Павлодара, посёлок Ленинский, 15.09.2006, Карибаев. 1 – вид сверху, 2 – вид снизу.