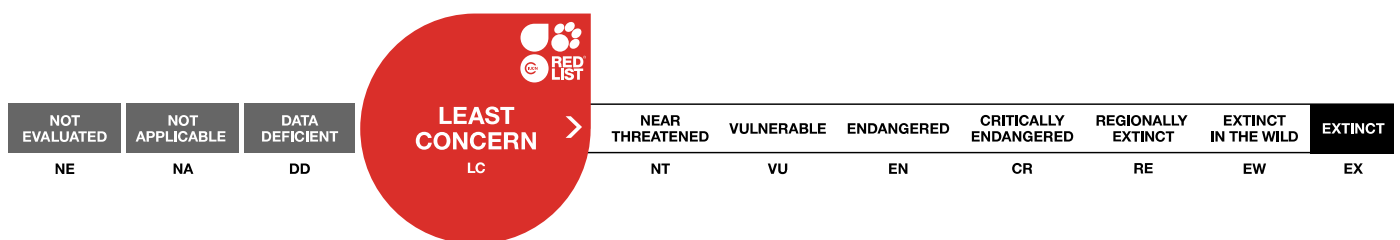


Pseudopelecocera latifrons, Пелекоцера широколоба

Assessment by: Pennards, G.W.A., Aracil, A., Barkalov, A., Mazanek, L., Mengual, X., Popov, G., Pérez, C. & Rojo, S.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Syrphidae

Scientific Name: *Pseudopelecocera latifrons* (Loew, 1856)

Synonym(s):

- *Ischyroptera annulipes* Lindner, 1941
- *Pelecocera latifrons* Loew, 1856
- *Pelecocera rectinervis* Kertész, 1896
- *Pelecocera sareptana* Enderlein, 1938
- *Pokornya latifrons* (Loew, 1856)

Common Name(s):

- Ukrainian: Пелекоцера широколоба
- German: Alpen-Breithornschwebfliege

Taxonomic Source(s):

Speight M.C.D. 2018. Species Accounts of European Syrphidae, 2018. Syrph the Net, the Database of European Syrphidae (Diptera). *Syrph the Net publications, Dublin* 103: 302.

Speight, M.C.D. 2020. Species accounts of European Syrphidae, 2020. Syrph the Net, the database of European Syrphidae (Diptera). *Syrph the Net publications, Dublin* 104: 1-314.

Taxonomic Notes:

Determination: See StN Key to Genera volume (Speight and Sarthou 2017). Mengual *et al.* (2015) redescribe *P. latifrons*, provide figures of various parts of the species and include it in a key in which it is separated from *P. tricincta*. *Pseudopelecocera latifrons* can be distinguished from all known European *Pelecocera* species by the width of its face which, at the level of the antennal insertions, is wider than an eye at the same level, in both male and female. Both the male and the female are illustrated in colour by Mengual *et al.* (2015).

Assessment Information

Red List Category & Criteria: Least Concern [ver 3.1](#)

Year Published: 2021

Date Assessed: September 19, 2019

Justification:

European Regional Assessment: Least Concern (LC)

EU 27 Regional Assessment: Endangered (EN)

Pseudopelecocera latifrons is associated with steppe habitat in Europe. The extent of occurrence (EOO) of this species in Europe is estimated to be around 2.7 million km² and the area of occupancy (AOO) is estimated to be around 1.2 million km². For the EU 27, the EOO is estimated to be around 455,000 km²,

but the AOO for EU 27 is estimated to be around 500 km². The species is relatively common in the southeastern steppe of the Ukraine, and there are also records from the Czech Republic and Hungary. However, some records from EU 27 countries are very old, and there are very little recent records from any of the EU 27 countries. The species seems to be extremely rare outside the Ukraine. The steppe habitat is considered threatened in the EU, the population trend in the EU 27 is considered to be strongly declining and the species is considered to occur at less than five locations. The estimated AOO will decline fast as the steppe habitat disappears. Therefore, in the EU 27, the species is assessed as Endangered. However, in Europe the species is assessed as Least Concern, because in the Ukraine and southern European Russia the habitat is still there and the population there seems to be reasonably stable.

Further research is needed on the threats, taxonomy, habitats, ecology and population of this species, particularly on the larvae.

Geographic Range

Range Description:

This species was described from specimens collected in the Lebanon. In their redescription of the species (as *Pelecocera latifrons*), Mengual *et al.* (2015) cite specimens examined from southern European Russia and Hungary. According to Peck (1988), this species has also been recorded from Germany (but possibly extinct), the Czech Republic, France, Roumania (Lasi, Jijia) and the former Yugoslavia. It is not currently included on the species lists for France or Germany (but probably as *Pelecocera latifrons*) - as far as we know there are no records in France, but it is suspected that it might occur there (Speight 2020).

The species is also known from Ukraine, in the steppe region, and is found in a few places in south European Russia (Lipetsk Region, Voronezh Region) (Barkalov and Mutin 2018). Its European occurrence is on the western border of the range.

Literature on this and related species is not comprehensive, but a lot of literature refers to the species as *Pelecocera latifrons*. Most recent record from the Czech Republic was from 2003, in the steppe region, with several records from one locality. One locality was found in 1992 to 1996 but has been searched for more recently and the species was not found there. Old records from Slovakia (1950s).

In 2005, the species was recorded from Hungary. There is no information on the record of Romania, it is listed on the checklist but no detailed information. Records from Germany exist but they are old (Ssymank pers. comm. 2019). It may be found in Turkey but there are two similar species that may cause confusion, one is *P. persiana* and another is a new species. According to Andre van Eck (pers. comm. 2019) the species doesn't occur in Turkey (in press).

The extent of occurrence (EOO) of this species in Europe is estimated to be around 2.7 million km² and the area of occupancy (AOO) is estimated to be around 1.2 million km². For the EU 27, the EOO is estimated to be around 455,000 km², but the AOO for EU 27 is estimated to be around 500 km², although it might be smaller when the species is restricted to the small part of steppe that remains in Europe. Due to the threats on the rare and declining steppe habitat, this species is considered to occur at less than five locations within the EU 27.

Country Occurrence:

Native, Extant (resident): Austria; Czechia; Hungary; Moldova; Montenegro; North Macedonia; Romania; Russian Federation (Central European Russia, East European Russia, South European Russia); Serbia; Ukraine

Native, Possibly Extant (resident): France (France (mainland)); Germany

Native, Possibly Extinct: Slovakia; Switzerland

Population

There are four specimens known from Czech Republic but they are old records from a National Park in the southeast of the country. The species is common in southeastern Ukraine, and was last collected in 2014. The specimen from Germany is more than 50 years old, and was probably found in the south, but a recent survey of steppe habitat in Germany failed to find the species again (A. Hochkirch pers. comm. 2019).

Overall, the species seems to still be present in the countries where the habitat still occurs, like Ukraine, Hungary and the southern part of European Russia. In the western parts of Europe, particularly in EU countries, the species has strongly declined and probably has disappeared from France (although it is unclear if it was ever found there), Germany, Slovakia and maybe the Czech Republic. Therefore, the overall current population trend of this species is considered to be decreasing in the EU 27, but probably stable in European Russia.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

This species is found in dry and steppic grasslands, although it can sometimes also occur in cities and in botanical gardens. It is probably a phytophagous species, although there is not much information about the larvae. There is lots of speculation around the larvae behaviour/ecology (may be below the ground in the grass root zone), and the species might be associated with fungi. The flight period of this species is April.

Systems: Terrestrial

Use and Trade (see Appendix for additional information)

This species is not used or traded.

Threats (see Appendix for additional information)

There are no known clear threats to this species, but the steppe habitat it lives in is considered to be a threatened habitat in the EU. This kind of habitat has probably disappeared in the western part of Europe due to (historical) anthropogenic activities like agriculture, logging and other human intrusions.

See for that the attached files to this assessment of the remaining steppe, the occurrence of the species is probably strongly connected with this, although there might be some populations outside this range which occur in cities and in botanical gardens. But it is unclear whether this will have a positive effect on the occurrence of the species. Frank van de Meutter (pers. comm. 2020) suggests that the species might have benefited from climate change where steppe habitat evolved.

Conservation Actions (see Appendix for additional information)

Further research is needed on the threats, taxonomy, habitats, ecology and population of this species, particularly on the larvae. It has been found in a National Park in the Czech Republic which was well protected during WW2 until 1989, but now there is increasing tourism (Mazanek pers. comm. 2019). In 2009, this species was listed in the Ukraine Red Data Book (Akimov 2009).

Credits

Assessor(s): Pennards, G.W.A., Aracil, A., Barkalov, A., Mazanek, L., Mengual, X., Popov, G., Pérez, C. & Rojo, S.

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Authority/Authorities: IUCN SSC Hoverfly Specialist Group

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External Resources

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Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
4. Grassland -> 4.4. Grassland - Temperate	Resident	Suitable	Yes

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.4. Scale Unknown/Unrecorded	Unknown	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.4. Scale Unknown/Unrecorded	Unknown	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.2. Species disturbance		
6. Human intrusions & disturbance -> 6.3. Work & other activities	Unknown	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Unknown	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		

Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: Unknown
Systematic monitoring scheme: Unknown
In-place land/water protection
Occurs in at least one protected area: Yes

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Action Needed
1. Land/water protection -> 1.1. Site/area protection
4. Education & awareness -> 4.3. Awareness & communications

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.1. Taxonomy
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 1177913
Continuing decline in area of occupancy (AOO): Yes
Estimated extent of occurrence (EOO) (km ²): 2651706
Continuing decline in extent of occurrence (EOO): Yes
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Movement patterns: Not a Migrant

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