

The red list of extincted, endangered, vulnerable and rare Thysanoptera species from Romanian Fauna (Insecta: Thysanoptera)

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Rezumat

Lista roșie a speciilor dispărute, periclitate vulnerabile și rare de tisanoptere din fauna României (Insecta: Thysanoptera)

Autorul propune, pentru prima dată în România, o listă roșie a speciilor de tisanoptere pe cale de dispariție, periclitate, vulnerabile și rare.

Keywords: Thysanoptera, red list.

The antropical impact upon natural ecosystems has induced important changes in the qualitative and quantitative structure of the flora and fauna. Human society economic development led to a severe decrease of the taxonomic diversity. Forestry ecosystems diminution, meadows ecosystems extension, hydro energetic works atmosphere and soil pollutions, inducing changes at the populations and genetic levels.

The number of world Thysanoptera species is about 5100 in the whole world. By their trophic behaviour they are dependent on plant species whose number is permanently diminishing within the world flora ; the number of endangered plant species is estimated at about 6000. In Europe, about 2000 plant species are already considered as rare and threatened by extinction.

In the Romanian flora there are 608 plant species on the Red List of endangered taxa. In the drawing of the Romanian Thysanoptera Red List there have been taken into account the International Union for Nature Conservation's criteria for different categories of endangered species, the systematical research in Romania starting with 1910 and the detailed ones since 1924 up to date. Also there has been used the German pattern of Thysanoptera species conservation's (ZUR SRASSEN 1984 1997), considered as the best by the field literature. This Thysanoptera Red List has been drawn up both by acknowledging the concrete situation for every species on the list and by evaluation of the critical state of their environment. The thysanopterological research completed during 75 years by different specialist allowed a real evaluation of the situation of Thysanoptera species. From the 215 Thysanoptera species identified so far

the majority is represented by the phytophagous species (mono- and poliphagous). Besides the poliphagous species, those dependent on single plant species, or on the species of the same genus and the stenoecces species are the most endangered in the case of changes of their habitat. The effects of the air pollution limit or induce the disappearance of some Thysanoptera species (VASILIU-OROMULU 1994). Hydro energetic works is the reason of hygrophilous and mezohygrophilous species preferential development to the prejudice of the xerophytic ones, changes that have implications on plant feeders and in particular on Thysanoptera. The acknowledgement of ecological requirements for every species offers pertinent information for identification of the endangered, vulnerable or rare species that already need protection. The Red List is addressed strictly to specialists; nevertheless it is a very important indicator in the habitat protection activity.

There are Thysanoptera species, which are endangered only at the level of some districts, but the impact degree can increase and influence the diversity in the whole country.

For this reason, Thysanoptera species protection means the protection of their habitats and of the ecosystems they populate.

The present Thysanoptera Red List needs periodical checking up according to the new results concerning the ecology and biogeography of this group. There have been adopted the following categories of endangered species which were used in other countries at drawing up different Red Lists:

- 1. Extinction (Ex)- Extinct species from the country's fauna or that couldn't be refund after several repeated searches in the places where they had been reported in the past. The criteria used by the

CITES Convention of International Trade of Endangered Species from the world flora and fauna refers to species which were not exactly found in wild nature in the last 50 years.

- 2. Endangered (E)- Species in danger of extinction whose survival is uncertain; either because of the decrease of the population down to the critical level; or because of their extremely reduced habitats. This category includes also the species that have probably disappeared and which existed in wild nature in the past 50 years.

- 3. Vulnerables (V)- Species that might become "endangered" in the near future if severe changes of environment could not be stopped (their habitats destruction); also species with populations already occupying great surfaces but whose areal is

in danger because of some noxious factors. These species are in a real regress on all the territory or just in some regions.

The species that live on critical habitats (on littoral dunes in the case of *Haplothrips titschacki* Pel.) are among the most vulnerable ones.

- 4. Rare (R) - Species with scarce population, which, at present, are neither "endangered" nor "vulnerable", but are exposed to this risk in the future. There is a scarceness of species which is produced by natural causes (rare occurrence of some habitats) and also scarceness caused by human activity, the action of the anthropic results.

After the analysis of 215 Thysanoptera species of the Romanian fauna, we present the following suggestion a Red List:

Ex - Extincts lost species or probably extinct:

Ropotamothrips ressi PRIESNER 1961

E - Endangered, species in danger of extinction:

Belothrips acuminatus HALIDAY 1836

Neoheegeria dalmatica SCHMUTZ 1909

Idolimothrips paradoxus PRIESNER 1920

V - Vulnerable:

Baliothrips dispar HALIDAY 1836

Eremiothrips manolachei KNECHTEL 1955

Haplothrips titschacki PELIKÁN 1965

Iridothrips iridis (WATSON 1924)

Iridothrips mariae PELIKÁN 1961

Megalothrips delmasi BOURNIER 1956

Odonthrips aemulans PRIESNER 1924

Oxythrips cannabensis KNECHTEL 1923

Pezidothrips robiniae PRIESNER 1924

Poecilothrips albopictus UZEL 1895

R - Rare:

Allothrips pillichellus PRIESNER 1925

Haplothrips floricae KNECHTEL 1960

Holothrips schaubergeri PRIESNER 1920

Hoplothrips absimilis KNECHTEL 1954

Hoplothrips lichenis KNECHTEL 1954

Lispthrips crassipes JABLONOWSKI 1894

Phlaeothrips annulipes O. M. REUTER 1880

Phlaeothrips bacauensis KNECHTEL 1948

Phlaeothrips bispinosus PRIESNER 1919

Phlaeothrips parvus UZEL 1895

Conclusions

On the basis of the systematic and ecological research rules on Thysanoptera. In the last 75 years in Romania, and by applying the UINC criteria, a suggestion for the Thysanoptera Red List was drawn up.

One species was considered extinct, three endangered, ten vulnerable and ten rare. The protection of Thysanoptera species implies the

protection of the plant species on which they grow, live, and also the protection of the ecosystems they inhabit.

The present Thysanoptera Red List should be periodically checked up, according to the new research on the group's biogeography and ecology.

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