

The taxonomical structure of the thysanoptera (Insecta: Thysanoptera) from the Gârbova Massif

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Rezumat

Structura taxonomică a thysanopterelor (Insecta: Thysanoptera) din Masivul Gârbova

Studiul structurii asociațiilor de tisanoptere din pajiștile secundare din Masivul Gârbova a permis menționarea a 65 de specii noi pentru acest masiv din totalul de 78 de specii identificate

Prin metoda cosirii cu fileul au fost colectate 68 de specii de tisanoptere, din care 23 de specii numai prin aceasta metodă, iar prin metoda scuturării plantelor înflorite 58 de specii, din care 15 sunt caracteristice acestei metode.

Abstract

The study of the thysanoptera associations' structure in the secondary meadows, in the Gârbova Massif, allowed the mentioning of 65 new species for this massif, from the total of 78 identified species.

By the sweeping method 68 thysanoptera species were sampled, out of which 23 species only by this method, and by the method of shaking the plants in bloom 58 species, out of which only 15 characteristic to this method.

Keywords : Thysanoptera, specii noi pentru Masivul Garbova

KNECHTEL described in the Gârbova Massif 13 thrips species in the Cumpătu area (Sinaia) in 1937, in different biotope types.

Material and method

The two methods utilised for collecting thrips are the following: sweeping and shaking the plants in bloom.

The Gârbova Massif is included in the Oriental Carpathians; it is situated at 25°34' East

longitude and 45°19' North latitude. In the massif, our research took place in the Bogdan Valley and in the Setu Mountain, in secondary meadows delimited by altitude, between 800 m and 1,500 m height.

Results and discussions

In the Gârbova Massif, in the Cumpatu area (in the city of Sinaia), Knechtel (1937) mentioned the following 13 species (table no. 1):

Table no. 1.

The thrips species in the Cumpatu area

<i>Anaphothrips obscurus</i> (Müller, 1776)	<i>Taeniothrips picipes</i> (Zetterstedt, 1828)
<i>Aptinothrips rufus</i> Haliday, 1836	<i>Tenothrips frici</i> (Uzel, 1895)
<i>Frankliniella intonsa</i> (Trybom, 1895)	<i>Thrips atratus</i> (Haliday, 1836)
<i>Haplothrips leucanthemi</i> (Schrank, 1781)	<i>Thrips dilatatus</i> Uzel, 1895
<i>Haplothrips reuteri</i> Karny, 1907	<i>Thrips montanus</i> (Priesner, 1920)
<i>Mycterothrips annulicornis</i> (Uzel, 1895)	<i>Thrips physapus</i> Linnaeus, 1761
<i>Sericothrips bicornis</i> (Karny, 1909)	

Our researches in the secondary meadows, in the Gârbova Massif, have revealed a large diversity of the thysanopteras, which reflects the heterogeneity of these ecosystems. Of the 78

identified species, 65 are mentioned for the first time in this massif (table no. 2).

Table no. 2.

Thysanoptera species mentioned for the first time in the Gârbova Massif

Fam. Aeolothripidae		
1. <i>Aeolothrips albicinctus</i> Haliday, 1836	33. <i>Thrips crassicornis</i> Bagnall, 1923	
2. <i>Aeolothrips ericae</i> Bagnall, 1920	34. <i>Tenothrips discolor</i> Haliday, 1836	
3. <i>Aeolothrips fasciatus</i> Linnaeus, 1758	35. <i>Thrips euphorbiae</i> Knechtel, 1923	
4. <i>Aeolothrips intermedius</i> Bagnall, 1934	36. <i>Thrips flavus</i> Schrank, 1776	
5. <i>Melanthrips fuscus</i> (Sulzer, 1776)	37. <i>Thrips incognitus</i> Priesner, 1914	
6. <i>Melanthrips knechteli</i> Priesner, 1936	38. <i>Thrips major</i> Uzel, 1895	
7. <i>Melanthrips pallidior</i> Priesner, 1919	39. <i>Thrips minutissimus</i> Linnaeus, 1758	
8. <i>Rhipidothrips graciosus</i> Uzel, 1895	40. <i>Thrips montivagus</i> Priesner, 1923	
Fam. Thripidae		
9. <i>Anaphothrips euphorbiae</i> Uzel, 1895	41. <i>Thrips nigropilosus</i> Uzel, 1895	
10. <i>Apterothrips secticornis</i> (Trybom, 1896)	42. <i>Thrips pelikani</i> (Schliephake, 1964)	
11. <i>Aptinothrips elegans</i> Priesner, 1924	43. <i>Thrips pillichi</i> Priesner, 1924	
12. <i>Aptinothrips styliifer</i> Trybom, 1894	44. <i>Thrips tabaci</i> Lindeman, 1889	
13. <i>Chirothrips aculeatus</i> Bagnall, 1927	45. <i>Thrips trehernei</i> Priesner, 1927	
14. <i>Chirothrips manicatus</i> (Haliday, 1836)	46. <i>Thrips trybomi</i> (Karny, 1908)	
15. <i>Firmothrips firmus</i> (Uzel, 1895)	47. <i>Thrips validus</i> Uzel, 1895	
16. <i>Frankliniella pallida</i> (Uzel, 1895)	48. <i>Thrips vulgatissimus</i> (Haliday, 1836)	
17. <i>Frankliniella tenuicornis</i> (Uzel, 1895)	Fam. Phlaeothripidae	
18. <i>Kakothrips dentatus</i> Knechtel, 1939	49. <i>Bolothrips bicolor</i> (Heeger, 1852)	
19. <i>Kakothrips robustus</i> Uzel, 1895	50. <i>Haplothrips acanthoscelis</i> (Karny, 1909)	
20. <i>Limothrips denticornis</i> (Haliday, 1836)	51. <i>Haplothrips aculeatus</i> (Fabricius, 1803)	
21. <i>Limothrips schmutzi</i> Priesner, 1919	52. <i>Haplothrips alpester</i> Priesner, 1921	
22. <i>Neohydatothrips abnormis</i> (Karny, 1910)	53. <i>Haplothrips angusticornis</i> Priesner, 1921	
23. <i>Odontothrips biuncus</i> (John, 1921)	54. <i>Haplothrips distinguendus</i> Uzel, 1895	
24. <i>Odontothrips confusus</i> Priesner, 1919	55. <i>Haplothrips kurdjumovi</i> Karny, 1913	
25. <i>Odontothrips loti</i> (Haliday, 1852)	56. <i>Haplothrips niger</i> (Uzel, 1815)	
26. <i>Odontothrips phaleratus</i> (Haliday, 1895)	57. <i>Haplothrips phyllophilus</i> Priesner, 1916	
27. <i>Oxythrips bicolor</i> (O. M. Reuter, 1897)	58. <i>Haplothrips setiger</i> Priesner, 1921	
28. <i>Parafrankliniella verbasci</i> Priesner, 1920	59. <i>Haplothrips subtilissimus</i> (Haliday, 1852)	
29. <i>Prosopothrips vej dovski</i> Uzel, 1895	60. <i>Haplothrips tritici</i> Kurdjumov, 1912	
30. <i>Sminyothrips biuncatus</i> Uzel, 1895	61. <i>Hoplandrothrips bidens</i> (Bagnall, 1910)	
31. <i>Stenothrips graminum</i> (Uzel, 1895)	62. <i>Liothrips austriacus</i> Karny, 1909	
32. <i>Taeniothrips inconsequens</i> (Uzel, 1895)	63. <i>Liothrips setinodis</i> (O. M. Reuter, 1880)	
	64. <i>Phlaeothrips coriaceus</i> Haliday, 1836	
	65. <i>Phlaeothrips pillichianus</i> Priesner, 1924	

The efficiency, from the thysanoptera taxonomic structure point of view, is specific to the collecting methods.

Thus, by the sweeping method, we have identified 68 thrips species, out of which 23 species only by this method. These are the following: *Aeolothrips albicinctus*, *Rhipidothrips graciosus* (Fam. Aeolothripidae), *Chirothrips manicatus*, *Frankliniella tenuicornis*, *Limothrips denticornis*, *Mycterothrips annulicornis*, *Neohydatothrips abnormis*, *Odontothrips phaleratus*, *Oxythrips bicolor*, *Prosopothrips vej dovski*, *Sericothrips abnormis*, *Sminyothrips biuncatus*, *Taeniothrips inconsequens*, *Thrips*

crassicornis, *Th. dilatatus* (Fam. Thripidae), *Bolothrips bicolor*, *Hoplandrothrips bidens*, *Liothrips austriacus*, *Phlaeothrips coriaceus*, *Ph. pillichianus* (Fam. Phlaeothripidae).

Some thrips species have an aleatory presence with the sweeping method: *Anaphothrips euphorbiae*, *Parafrankliniella verbasci* and *Thrips nigropilosus*.

So, by the sweeping method there were sampled 87.18% of the number of species from the studied sites, these belonging to the Subord. Terebrabtia, Fam. Aeolothripidae (7 species), Fam. Thripidae (43 species) and Subord. Tubulifera, Fam. Phlaeothripidae (18 species).

By the shaking method, 58 species were identified, representing 78.36% from the total number of species. There is to be reported the presence of some species unidentified with the net collecting, namely: *Melanthrips knechteli* (Fam. Aeolothripidae), *Apterothrips secticornis*, *Frankliniella pallida*, *Kakothrips dentatus*, *Stenothrips graminum*, *Tenothrips discolor*, *Thrips euphorbiae*, *Th. incognitus*, *Th. pillichii* (Fam. Thripidae), *Haplothrips phyllophilus* (Fam. Phlaeothripidae).

As in the case of the first method we have mentioned, as a result of the blooming plants shaking there were sampled, installed individuals, that belong to several species such as: *Apterothrips secticornis*, *Aptinothrips elegans*, *Kakothrips dentatus*, *Limothrips schmutzi*, *Liothrips setinodis*, *Melanthrips knechteli*, *Haplothrips phyllophilus*, *Haplothrips kurdjumovi*, *H. subtilissimus*, *Tenothrips discolor* and *Thrips incognitus*.

The richness of species in the Gârbova Massif confirms the true thysanoptera treasure - value of the meadows from this massif, both the abiotic factors and the vegetal associations providing optimum developing conditions to these insects.

Conclusions

1. There are 65 thrips species newly mentioned for the Gârbova Massif.
2. Only by utilising the two collecting methods, the sweeping and the shaking of the plants in bloom, was it possible to obtain such a high diversity, because some thrips are specific to each of these methods.
3. 7 species belong to the Fam. Aeolothripidae, 40 species to the Fam. Thripidae and 17 species to the Fam. Phlaeothripidae.

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