

New Data to the Microlepidoptera Fauna of the Retyezát Range

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During my research work in connection with coenologic problems of Lepidoptera it became necessary to look for oecologic data on certain species of micro-moths. Some phases of my investigation touched on high-mountain forms and as the Collections of the Natural History Museum in Budapest has a rich material originating from the Retyezát Range I included in my work the revision of these collectings.

The Retyezát Range is one of the last big groups of the Carpathians' arch in Rumania, its direction being roughly NE-SW. It has peaks higher than 2400 and even 2500 meters, high alpine regions above snow line. The fiziographic and floral characterization from an entomologic point of view may be found in the first of L. Diószeghy's papers (1), and, as considerations of space warrant it, I only allude to this paper without going further into the matter.

Lancelot Diószeghy, the most arduous collector of the lepidopterous riches of this Range, brought together a big material in eleven expeditions to it in the years 1914—1932. His collectings were partly incorporated in his collection (which, to my best knowledge, perished during the war in his house in Ineu, Rumania), and were partly sent to this Museum in exchange and as presents. Dr. A. Schmidt in Budapest and Prof. H. Rebel in Vienna made the necessary determinations, but there remained also a lot of undetermined material. The same applies to the collectings of Ujhelyi, a preparator of this Museum, who also collected in the Retyezát in 1914 (July 10—23). As some of these identifications and therefore some of the published data in Diószeghy's papers are deficient I had to re-determine the whole material in the Collection, reviding also Diószeghy's various papers to correct eventual errors. This is the more interesting as some fresh data may throw more light in the connexion of the Retyezát Massif's lepidoptera with other isolated lepidoptera faunas of Southern European Mountains and Ranges, such as I believe to exist with the Yugoslavian Alps, the Austrian and Swiss Alps, and even the Pyrénées. I wish only to point out in the hitherto unpublished material (cf. also Bibliography) such species as *Epiblema grandaevana* Z., *Catoptria monstratana* Rbl., *Gelechia klosi* Rbl., *Gelechia pyrenaica* Petry, and *Zelleria rufella* Tgstr. Then there are some species that reveal connections with Eastern Asian mountainous regions, their westernmost dispersion being the Retyezát Range: *Phaneta abacana* Ersch., *Phiaris cacuminana* Kennel, *Laspeyresia junctistrigana* Wlsghm., and *Cerostoma leuconotella* Snellen.

Diószeghy collected with the net, sugaring and by artificial light. Owing to these methods there are almost no data on the smallest micros, e. g. the miners. No mine is mentioned in his works, and only a few imagines of mining species enumerated. The miner fauna of the Retyezát (which must be exceedingly

rich) is therefore not yet even touched upon. In spite of this, Diószegehy and other collectors have brought together a material consisting of 514 species: a big number even in the light of above shortcomings.

I use the following abbreviations in the special part of the paper: D. = Diószegehy, K. = Köntzei, U. = Ujhelyi.

In the Bibliography I give some new papers to complete the enumeration of references given in the first publication of Diószegehy (1. p. 9.).

Systematic Part

1. *Perinephila lancealis* Schiff. D. 1928, VII. 20. 1000 m. ♀
2. *Scoparia ultella* Knaggs. K. 1920. VII. 14. Zlata.
3. *Crambus lucellus* H.—Sch. D. 1928. VII. 15. 26. 27. ♂♂. 800—1200 m.
4. *Homoeosoma binaevillum* Hbn. D. 1928. VII. 5. 14. 19. ♀♀. 1000—1100 m.
5. *Pyrausta tendinosalis* Brem. D. 1927. IX. 20. ♂. 1000 m.
6. *Pyrausta cingulata* L. D. 1928. VII. 26. 27. ♂♀. 600—800 m.
7. *Capperia pilosellae* Z. D. The *pilosellae* Z. specimen mentioned on p. 96 (1) is the determination of Schmidt. There is another label on this specimen, the identification of Dr. J. Szentivány: «*hieracii*». Of this species however Adamczewski has shown (4) that it is identical with *chrysodactylus* Schiff., which cannot occur on the Retyezát. This specimen belongs to the genus *Crombruggia* Tutt, being probably a subspecies of *distans* Z. (cf. 4. p. 381), or a new high mountain species. There is another specimen of this kind in the Collection: D. 1928. VII. 13. ♀. 900 m.
8. *Platytilla zetterstedtii* var. *doronicella* Fuchs. D. 1928. VII. 20. ♂. 1000 m.
9. *Alucita baliodactyla* Z. D. 1928. VII. 15. o. 800—1800 m. — 1928. VII. 21. ♀. 1200 m.
10. *Phalonia nana* Haw. D. 1923. VI. 13. ♀. 1100 m.
11. *Phalonia ciliella* Hbn. D. 1927. VII. 28. ♂. Gura Api. det. Zerny.
12. *Brevisociaria curvistrigana* Wilk. D. 1927. VII. 27. ♀. 700 m. (*Commophila putvilliana* H.—Sch. det. Uhrík.) I know only of one other data from Transsylvania, a specimen caught by Czekeľius in Előpatak. (1. p. 91, Nr. 662.)
13. *Epagoge artificiana* H.—Sch. D. 1923. VI. 17. ♂. 700 m. (*Acalla grotiana* F. det. Uhrík.)
14. *Adoxophyes orana* FR. D. 1922. VII. 8. ♂. 1000 m. There is only one specimen of this highly common injurious insect.
15. *Tortrix paleana* Hbn. D. 1928. VII. 20. ♂♂ ♀. 1000 m. — 1923. VI. 17. ♂. 1000 m. — U. 1914. VII. 10—23. ♂.
16. *Tortrix rogana* Gn. D. 1928. VII. 20. ♂♂. According to my data this species is known only from three places in the Carpathians: Vratna, the High Tatrá, and the Fogaras Alps.
17. *Nephodesme derivana* Lah. D. 1923. V. 31. ♂. 800 m. Diószegehy mentions this specimen (1. p. 91, Nr. 647) under an asterisk, as *Tortrix wahlbomiana* var. *virgaureana* Tr. The specimen was identified as such by Uhrík as its label bears witness. There is another specimen also in the Collection, also leg. D.: 1928. VII. 14. ♂. 1000—1100 m.
18. *Cnephasia chrysanteana* Dup. D. 1922. V. 26. 27. 28. ♂♂. 800—900 m., and a ♀ 1928. VII. 20. 1000 m. The *wahlbomiana* specimens mentioned in (1) and (3) must also have been *chrysanteana* Dup., as after revision of all the specimens in the Collection only one real *communana* L. was found among them.
19. *Cnephasiella abrasana* Dup. K.? (based on the handwriting of the label). 1917. VII. 08. ♀. Lake Zenoga.
20. *Lobesia permixtana* Hbn. D. 1922. V. 24. ♀. 26 ♂. 1000 m. 30. ♂ ♀. 900 m. — VI. 1. ♂. 800 m. — 8. ♀. 800 m. Diószegehy never mentioned this species though it was correctly determined by Uhrík.
21. *Phiaris micana* Hbn. leg. Dobay (label with the handwriting of D.) 1922. VII. 8. 1000 m. ♂. According to the available data this species is known in the Carpathians only from Üjtátrafüred (Schmidt), Apsnyec (Balogh), Hohe Rinne (Czekeľius).
- — — *Phiaris obsoletana* Zett., is of course the right name for *Olethreutes metallicana* var. *sudetana* Stndf., enumerated in (1) p. 93, Nr. 685. There are 55 specimens from the Retyezát in the Collection of the Museum, showing a strong varying tendency in the pattern.
22. *Phiaris cacuminana* Kennel. U. 1914. VII. 10—23. ♂. This species is the first found in Europe, hitherto being known only from Mandsuria and the Ussuri territories.
- 23*. *Olethreutes turfosana* H.—Sch. D. 1923. VI. 9. ♀. 850 m. There is only one other data about its occurrence in the Carpathians, the NE. Alps.

24. *Olethreutes umbrosana* Frr. The specimen mentioned in (1) p. 92, Nr. 678, as *Argyroloce urticana* Hbn. (det. U h r i k) belongs to this species. There are also the following ones in the Collection: D. 1921. VII. 10. ♂. 400—800 m. — 1922. V. 26. ♂. 900 m. — VII. 5. ♂. 800 m. — VI. 12. ♂. 850 m. — 1928. VII. 15. ♀. 800—1800 m.

25. *Olethreutes flavipalpana* H.—Sch. D. 1922. V. 30. ♂. 900 m. Among *cespitalana* Hbn. specimens.

26. *Griselda fractifasciana* Haw. D. 1922. V. 30. ♂. 900 m. det: R e b e l.

27. *Epiblema grandaevana* Z. D. 1928. VI. 20. ♂. 1000 m. — 1928. VII. 15. ♀. 800—1800 m. This fine pair is the first known occurrence of the species in the Carpathians, proving the connection of the Retyezát's fauna with the Alps and North European high mountains.

28. *Pelochrista decolorana* Frr. D. 1927. VII. 25. ♂. 1400 m. Plessi. This specimen bears the wrong determination label of U h r i k: »*Epiblema expallidana* Haw.« (1. p. 94. Nr. 706). *Expallidana* Haw. is a species of the plains, or rather of wet lowland territories.

29. *Catoptria monstratana* Bbl. D. 1921. VII. 12. ♂. 800 m. Its label: »*Epiblema fulvana* Stph.« det. U h r i k. It is possible therefore that this specimen originates from the ones so enumerated under (1). p. 94. Nr. 705. Alas, there is only this one specimen in the possession of the Museum, so it remains an open question whether there were really some *fulvana* Stph., in D i ó s z e g h y's collection or all of them belonged to *monstratana* Rbl., a species described from S c h a u f i g g on the Rhine from an 1600 meters altitude. This data also proves the isolated fauna of the Retyezát in the Carpathians, and its connection with the Swiss Alps.

30. *Catoptria? fervidana* Z. D. 1927. VII. 23. 29. VIII. 4. IX. 23. 27. X. 2. A series of seven specimens of which, however, almost every one is worn making a correct identification impossible. They seem to stand nearest to *fervidana* Z. Altitude of collecting is also between 1000—1600 m, which seems to correspond to *fervidana* Z. range, inhabiting southern hilly regions.

31. *Phaneta abacana* Ersch. D. 1923. VI. 8. ♂. 850 m. Labels: »*Semasia* sp. nahe *myrificana*, S c h m i d t.« — 1932 fotograf.« — »*myrificana* nova subsp. det: R e b e l.« — The specimen itself is somewhat oily, and therefore all colors darker than those given in K e n n e l (Taf. XIX. fig. 69.). Also its white color is almost totally covered by red and gray, and this hind wings are more ovaly arched than again in K e n n e l's picture, their shape corresponding rather with that of *astragalana* Stgr. (K e n n e l, XIX. fig. 83.) It cannot be *myrificana* at all, as I have made genitalic slides of both species and they widely differ. I do not have *abacana* Ersch., in the Collection, so I cannot make a real comparison, but in spite of above minute difficulties I cannot but hold it to be *abacana* Ersch. A striking find again: the species inhabiting Siberia and Eastern Asia.

32. *Laspesypria junctistrigana* Wlsghm. D. Retyezát. 1928. VII. 20. ♂. 1000 m. — VI. 20. ♀. 1000 m. — VII. 15. ♀. 800—1000 m. This species again had to be identified by text alone. The specimens are congruent with W a l s i n g h a m's description. The most striking feature of the species' pattern is the white dorsal patch in the form of a duck's head (rather like that of *E. foenella* L.), and the almost vertical first costal pair of strigulae. The types are from the bordering mountains of Syria and Turkey! This find is new for Europe.

33. *Grapholirtha nebritana* Tr. D. 1928. VII. 26.—27. ♀. 600—800 m.

34. *Dichrorampha tanaceti* Stt. D. 1928. VII. 14. ♂ ♀. 1000—1100 m. 1921. VII. 16. ♂. 700 m. — 1922. V. 29. ♂. 1400 m. — U. 1914. VII. 10—23. 3 ♂. This species was enumerated as *alpestrana* H.—Sch. in (1). p. 94. Nr. 722., though in our material, 6 specimens of D i ó s z e g h y, and 3 of U j h e l y i are *tanaceti* Stt. Another one of them is the below following *resplendana* Hein. It is doubtful whether there ever existed *alpestrana* H.-Sch. either in the K ö n t z e i or the C z e k e l i u s' collectings from the Retyezát. One of our specimens bears the label of U h r i k's determination: »*alpestrana* H.-Sch.«

35. *Lipotypha resplendana* Hein. U. 1914. VII. 10—23. L a b e l e d: »*Dichr. alpestrana* H.-Sch.« Notwithstanding other considerations this specimen has no costal fold (male!), and so cannot be a *Dichrorampha* at all. It is a fine specimen of *resplendana* Hein., and so the first Carpathian data.

36. *Aristotelia bifractella* Dgl. D. 1928. VII. 20. ♀♀. 1000 m.

37. *Epithictis pruinosa* Z. D. 1923. VI. 5. ♂. 800 m. — 1928. VII. 14. ♀♀. 1000—1100 m. On the label of the male specimen: »*Gelechia galbanella*, det. U h r i k.«

38. *Tephusa albunella* Dup. D. 1923. VI. 16. ♂. 700 m.

39. *Tephusa wagae* Now. D. 1923. VI. 8. ♂. 900 m.

40. *Lita solutella* Z. D. 1928. VI. 20. 1000 m. — VII. 19. 1000 m. — VII. 20. 2000 m. All females.

41. *Bryotropha cinerosella* Thnbg. D. 1928. VII. 15. ♀. 800 m.

42. *Gelechia tephriditella* Dup. D. 1926. VII. 27. 2200 m. — 1928. VI. 20. 1000 m. — VII. 20. 1000 m. — VII. 15. 800—1000 m. Females all.

43. *Gelechia continua Z. D.* 1928. VII. 15. ♂. 2000 m. — VII. 20. 2000 m. — VII. 25. 2000 m.
44. *Gelechia klosi Rbl. D.* 1927. VIII. 4. ♀. 1800 m. Judele. — U. VII. 10—23. ♂♂♀. Diószegehy's specimen was determined by Uhrik as »*Lita vicinella* Dgl.«, while Ujhelyi's bears Schmidt's label with the same name. (1. p. 99. Nr. 805., is therefore false, even its date is VIII. 4. and not VIII. 3.). — *Klosi Rbl.*, was known only from the high mountains of Carinthia and Steiermark.
45. *Gelechia pyrenaica Petry. D.* 1921. VII. 14. ♂. 1400 m. Polish explorers have already found this species in the High Tatra, being only known hitherto from the Pyrenees. Diószegehy mentions this species (1.) p. 99. Nr. 800. with the name *dzieduszyki* Now., which is, however, quite another species.
46. *Sophronia sicariella Z. D.* 1914. VI. 19. Without abdomen.
47. *Stomopteryx patruella Mn. D.* 1927. IX. 28. ♂. 1200 m.
48. *Stomopteryx biformella Schütze. D.* 1922. VII. 13. 800 m. Uhrik's label: *Anacamps. sarothamniella Z.* — therefore (1). p. 99. Nr. 812. is false.
49. *Acarthophila alacella Dup. D.* 1928. VII. 20. 1000 m.
50. *Anacampsis betulinella Vári. D.* 1921. VII. 11. ♀. 800 m. — 23. VI. 17. ♂♀. 600—700 m. — 1926. VII. 20. ♂. 800 m. — leg. U.: Gura Zlati, 1914. VII. 10—23. 3 ♂ and 3 ♀. There is only one populella Cl. in the whole series: 1929. VII. 3—6. 1000 m. — from quite another place. The *betulinella* Vári specimens must have originated from birchy forests or plains (Gura Zlati).
51. *Hypatima binotella Thnbg. D.* 1928. VIII. 14. ♀. 1000—1100 m.
52. *Hypatima inunctella Z. D.* 1927. VII. 23. ♂. 1200 m. Plessi, det. Rebel.
53. *Borkhausenia minutella L. D.* 1923. VI. 6. ♂. 1400 m. det.: Rebcl.
54. *Pleurota bicostella Cl. D.* 1928. VII. 15. 4. ♂. 1900—2100 m. 1928. VI. 20. 1000 m.
55. *Agonopteryx sarracenella Rsl. D.* 1927. X. 2. 1200 m. Without abdomen. Right upper wing broken off.
56. *Roeslerstamnia pronubella Schiff. D.* 1923. VI. 8. ♂. 1100 m.
57. *Elachista subalbidella Schläg. D.* 1923. VI. 5. ♂. 800 m. The very big specimen was determined by Uhrik as: »*Fuchsia luteella Hein* (!). So (1). p. 98. Nr. 778 must be deleted.
58. *Eupista troglodytella Dup. D.* 1927. VIII. ♂. 1000 m. det. Rebcl.
59. *Eupista laripennella Zett. D.* 1927. VII. 28. 800 m. Gura Zlati. Without abdomen. det. Rebcl.
60. *Caloptilia rufipennella Hbn. D.* 1927. IX. 27. 1200 m. Without hind wings and abdomen. — IX. 30. ♀. 1100 m.
61. *Parornix fagivora Frey. D.* 1927. VII. 29. ♂. 1300 m.
62. *Zelleria hepariella Stt. D.* 1923. VI. 1. ♀. 750 m. Label: »*insignipennella* Stt. det. Rebcl.«
63. *Zelleria rufella Tgstr. D.* 1923. VI. 3. ♀. 1100 m. This again is the first Carpathian specimen of this Northern, Swiss and French Alpine species. Label: »*Hoffmannia rufella* (Schmidt's handwriting). — U.: 1914. VII. 10—23. ♂. Schmidt's label: »*Zelleria hepariella*, unicolorous specimen (!). Second label: »? J. Szőcs.«
64. *Argyresthia semitestacea Curt. D.* Kump. 1927. VII. 22. ♀. — 1927. IX. 1. ♀. 1400 m.
65. *Cerostoma leuconotella Snell. D.* Retyzát, Berhina: 1927. X. 6. ♀. 1400 m. Label: »*Plutella falcella?*« (Schmidt), — 1930. VIII. 27. ♀. 1200 m. Label: »1932. fotogr. (Schmidt).« Snellen described this beautiful *Cerostoma* species from the Amur territories. These are the second and third European specimens. Prall caught the first one in the Szurduk Pass near Petrozsény, Com. Hunyad (Eastern border of the Retyzát), 1917. VIII. 2. ♀. (5).
66. *Melasina ciliaris O. D.* 1926. VII. 28. 2200 m. ♀. Among *lugubris* Hbn. specimens.
67. *Scardia tessulatella Z. D.* Every *boleti* F. enumerated under (1). p. 102. Nr. 863. proved to be *tessulatella* Z. This data is therefore to be deleted.
68. *Tinea quercicolella H.-Sch. D.* 1923. VI. 2. 900 m. ♂. — 1927. VIII. 3. o. 200. Lake Zenoga!
69. *Incurvaria pectinea Haw. D.* 1922. V. 30. ♀. 900 m.
70. *Nemaphora cupriacellus Hbn. D.* 1928. VII. 13. ♀. 1000 m.
71. *Nemaphora istrianellus H.-Sch. D.* 1923. VII. 13. Without abdomen and hind wings, but well recognizable.
72. *Nemaphora minimellus Z. D.* 1921. VII. 16. ♂. 400—800 m.
73. *Adela cuprella Thnbg. D.* 1922. V. 23. 900 m. Without abdomen and wings.

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Újabb adatok a Retyezát molylepkefaunájához

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Az Országos Természettudományi Múzeum gyűjteményében levő retyezáti eredetű molylepkek felülvizsgálata során a Retyezát faunájára még nem ismertetett adatokat, illetve téves határozásokat találtam. Felülvizsgáltam tehát nemcsak ezt az anyagot, de az ottani gyűjtésekkel kapcsolatos irodalmat is. A Retyezát faunájának elszigeteltségére, illetve nyugat- és észak-európai alpesi vidékekkel, a Pyreneusokkal és ázsiai magashegységekkel való kétségtelen faunisztkai kapcsolatára újabb bizonyító adatok merültek fel. Így nyugattal és északkal az *Epiblema grandaevana* Z., *Catoptria monstratana* Rbl., *Gelechia klosi* Rbl., *Gelechia pyrenaica* Petry, *Zelleria rufella* Tgstr., — az ázsiai faunákkal a *Phiaris cacuminana* Kennel, *Phaneta abacana* Ersch., *Laspeyresia junctistrigana* Wlsghm., és a *Cerostoma leuconotella* Snell.

A Retyezatról ismeretes molylepkefajok száma ezzel 514 fajra nőtt, ami elég tekintélyes szám, ha tekintetbe vesszük, hogy a gyűjtések során az aknázókat eddig egyáltalán nem vették figyelembe.

Л. Гозмань (Будапешт):

К фауне моли горы Ретезата

(Резюме)

При ревизии материала, находящегося в мольной коллекции Общегосударственного естественно-научного музея с горы Ретезата, автор натолкнулся не только на совершенно новые виды, но также и на определения, которые оказались неправильными. Поэтому пришлось проверить не только материал, но и литературу, относящуюся к нему. При этом получились новые доказательства на изолированное положение Ретезата и на его фаунистические связи с альпийскими горами Западной и Северной Европы, Пиренеями, равно как и с высокими горами Азии. Связи с Западом и Севером подтверждаются наличием *Epiblema grandaevana* Z., *Catoptria monstratana* Rbl., *Gelechia klosi* Rbl., *G. pyrenaica* Petry, *Zelleria rufella* Fgstr., а о связи с Азией свидетельствуют *Phiaris cacuminana* Kennel, *Phaneta abacana* Ersch., *Laspeyresia junctistrigana* Wlsghm., *Cerostoma leuconotella* Snell. Учитывая и новые виды, число их, водящихся на горе Ретезата, дошло до 514. Это число является довольно значительным, ввиду того, что моли-минеры вовсе не были приняты во внимание при сборе.

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