Notes on Some Hungarian Gelechioidea and Coleophoridae

By L. A. Gozmány, Budapest

I. A restriction of the genus Gelechia Hbn., concerning the species occurring in Hungary

When I published, in 1952, (Rov. Közl. S. N., 5, p. 161–193.) a check list of Hungarian Microlepidoptera, my sole aim had been »to give a systematic check list of all species known from the territory of Hungary.« The work was necessitated by the dual fact that no comprehensive list of »microlepidoptera« had been issued since the appearance of the great Fauna Regni Hungariae (1896), and that, consequently, no Hungarian amateur lepidopterist had modern taxonomic literature at his disposal with regard to the home fauna, to keep up with nomenclatural and systematical changes. This check list can now be treated as a base for the working out of certain groups which are far from being both faunistically and systematically cleared up yet. Such a group, among others, is the assemblage of species under the generic name *Gelechia* Hbn.

Far from suggesting that I wish to treat this genus in all its devastating taxonomic and systematic ramifications or that I want to revide even a portion of it, I will only give some considerations to the systematic evaluation of the species which had hitherto been detected in our country. The more so, as the first—and most important—steps had already been taken in this regard by no less a worker than A. B us c k. He had, and in my opinion very rightly, treated the enormously large and heterogenous North American group of the species comprising *Gelechia* Hbn., on the ground of the structure of the genital organs. I wish only to refer, in passim, to the well-known modern trend in entomological systematics, namely, that a grouping of species will the better represent an (also philogenetically) natural assembl if based on as much identical or similar features in their external and internal characters and their general habits of life as possible. Groupings which had till now been based on external morphological characters alone (e. g. nervation, palpi structure, etc.), now turn out to be rather haphazard aggregations of species after the study of also their inner organs. The study of these will let them fall into well demarcated and more »natural« grouplets. »No apology, says B u s c k (op. citand. 566), is needed for the use of the characters of the genitalia as major determinating factors in the definition of genera. Their value in the sound classification of Lepidoptera is conceded by all modern workers«

Systematic studies along these lines will, of course, work havoc in some of the larger groups. In most cases, they will be broken up. Without wishing to rake up the old controversy of »splitters« vs. »hoarders«, my views are that the more uniform concerning its members and the more delimited from other assemblages of species a group is, the better such a group will, notwithstanding its size (whether containing hundreds of species or one only), be founded on actual relationships, —the ultimate goal of every taxonomist. And, since B u s c k's studies rest on these ideas, it should already have been accepted everywhere, — and more especially so in Europe. It should be a grave concern of ours that (with the exception of Dr. A m s e 1 and L e M a r c h a n d) we seem not to have given a second thought to his work, or taken up where he left off fifteen years ago.

In his paper (Restriction of the genus *Gelechia* [Lepidoptera : Gelechidae]), with descriptions of new genera, Proc. US. Nat. Mus., 86, 1939, Washington, p. 563—594.) B u s c k himself warns us that, besides such European species as he examined and relegated to also American genera during his studies on Nearctic species, there will be found »probably other«

Old World species belonging to these same genera. This, in itself, should have been a challenge to European workers for an examination of their Gelechid material.

From Hungary, 39 »Gelechia« species were known up to now. I have examined specimens of all of them with the exceptions of *rebeliella* Hauder (as the two specimens we have had their abdomens broken away), and *aplasticella* Rebel (of which we do not have any in the Collection of the Museum). All other species were represented by specimens captured either in Hungary or in the area of neighbouring countries (e. g. Transylvania in Roumania, or the Northern Carpathian Ranges in Czechoslovakia, etc.), and preserved in the Collection of the Hungarian Natural History Museum.

All the examined species fall either into the genera included in B usc k's paper, or into new ones. Since not only do the *Gelechia* group of species present difficulties even of generic identification but also their nearest relatives, I will include, for this purpose, their closest associates in the synoptic key below.

Concerning the external morphological characters of the genera considered here, I may as well cite B u s c k' own concise description : (p. 566, op. cit.) »Antennae shorter than fore wings, second joint of labial palpus thickened with scales, and with rough and normally furrowed tuft beneath, terminal joint nearly as long as or slightly longer than second. Fore wings elongate, more or less pointed, 12 veins, 7 and 8 stalked, 7 to costa, 6 sometimes out of 7 near base, 3 and 4 approximate, connate or short-stalked, 1b furcate at base, 1c absent. Hind wings nearly as broad or broader than fore wings, trapezoidal, apex pointed or obtuse, termen more or less sinuate, 8 veins, 3 and 4 closely approximate, connate or stalked. Hind tibiae rough haired above.«

Synoptic key to the genera based on male genitalia :

1. U at 2. B - E 3. V	Incus hood-shaped, sometimes indented or bifid but not a straight tri- ngular structure or a pointed horn
- V 4. A lo - N 5. U - U 6. A	Gnorimoschema Busck Veins $RR+M_1$ on stalk, or more or less approximate Gelechia Hbn. edoeagus in a tube of the fused, upright vinculum, accompanied by a very ong (as the whole armature), hard, filiform prong Mirificarma Gozm. to such structure
— A 7. A — A	Lita Tr. Ledoeagus arched or bent, base bulbousFriseria Busck Ledoeagus long, with long stalk yet below entrance hole for penis Chionodes Hbn.
8. A A	edoeagus short, stumpy, with lateral branches, spines, or serrated edges Filatima Busck Ledoeagus long, slender, its tip whip-like, its base bulbous Bryotropha Hein.
9. U — U 10. C — G	Uncus triangular, straight, gnathos absentOrnativalva Gozm.Jncus pointed.10Gnathos absent10Aroga Busck10nathos large, well developedNeofaculta Gozm.

Synoptic key to the genera based on female genitalia

1. Signum doubleLita Tr.
- Signum single
- Signum not so
3. Signum long, curved, with a tooth at its base Gnorimoschema Busck
- Signum short, straight, with a circular base Friseria vepretella 4 Signum an involuted double-flanged spiny plate 5
- Signum not so
5. Signum large, angular, with minute spines, ostial plates with lateral lobes
- Signum small, oval, with dentate edges, no lateral lobes on ostial plates6
6. Ductus bursae opens on ostial plates, bursa not spiny
- Ductus bursae does not open on ostial plates 7
7. Upper part of bursa minutely spined
- Upper part of bursa smooth, vitellineMirificarma Gozm.
- Bursal wall minutely spined (as if sclerotized)
9. Signum a small rectangular plate, with strong spines at each corner
- Signum a spiny plate, with two transverse, raised keels
Bryotropha Hein.
10. Ductus bursae short, straight
Ductus buisde long, convoluted

On the ground of the examinations, all *Gelechia* species captured up to date in Hungary could be relegated to these genera. Two of them, namely *tessella* Hbn., and *diffinis* Haw., had to be put into the genus *Adrasteia* Chamb. (*Teleia* auct., *Telphusa* Chamb., nom. preocc.). The others will be discussed below.

1. genus Aroga Busck

(Generotype, A. paraplutella Busck.)

Second joint of labial palpus with slightly furrowed brush, third joint 1/1. Fore wings with veins $M_{2,3}$ and $Cu_{1,2}$ nearly equidistant. Hind wings with RR, M_1 separate, M_2 near M_3 connate with Cu_1 . Male genitalia : uncus long, a bent hook, pointed, gnathos absent, valvae simple, long, slender, ending in a sharp thorn. Aedoeagus straight, penis entrance at base. Female genitalia : signum nearly a square plate, with pointed spines at each corner (Figs. 1. 2.)

Hungarian species of Aroga: velocella Dup., flavicomella Z.

2. genus Bryotropha Hein.

(Generotype, Tinea terrella Schiff.)

Basal joint of antenna with a single bristle. Labial palpus with developed and furrowed brush, terminal joint 1/1 or longer. Fore wing with veins M_1 to Cu_2 nearly equidistant. Hind wing with $RR+M_1$ stalked, $M_3 + Cu_1$ stalked or connate. Male genitalia : Uncus hood-shaped, socii with bristles, gnathos in one group of species enormously large, bulbous, with pointed hook at its tip, (in another group small, simple) valvae small, hairy, aedoeagus long, slender, its tip whip-like, base bulbous, vinculum large, pointed anteriorly. Female genitalia: Ductus bursae straight, bursa vitelline, signum in one group of species a plate with two raised keels, (in another a rectangular plate with spines at each corner.) (Figs. 3. 4.).

Contrarily to B u s c k's opinion (op. cit. p. 576–7), I am of the view that the above differences are so emphasized in the European species that they satisfactorily delimit two groups of species which should be regarded as subgenera at least. In this way, subgenus *Bryotropha* Hein will include the Hungarian species *terrella* Hbn. (subgenerotype), *desertella* Dgl., and *domestica* Haw., whilst subgenus *Adelphotropha* subg. nov., will embrace the Hungarian species *senectella* Z. (subgenerotype), *cinerosella* Thnbg., *umbrosella* Z, *affinis* Dgl., and *dryadella* Z.

3. genus Filatima Busck

(Generotype F. serotinella Busck.)

Labial palpus with large brush, furrowed, terminal joint 1/1. Fore wings with $M_{2,3}$ and Cu_1 rather approximate, M_1 and Cu_2 further away. Hind wings with RR and M_1 approximate, $M_3 + Cu_1$ connate. »In the males, — says Busck (p. 575), — with more or less elaborate sex scaling on the underside (»curtain-fringed«)«. Male genitalia with moderate uncus and gnathos, valvae cleft into two branches, aedoeagus short, stumpy, with sharp lateral projections and serrations. Female genitalia with ductus bursae very short, spiny, bursa double, signum consisting of two or one strongly dentate thorn(s) from a common, variously shaped base. Signum sometimes absent. (fig. 5, 6).

Hungarian species of *Filatima*: tephriditella Dup., spurcella HS., ignorantella HS, peliella Tr., ericetella Hbn.

4. genus Friseria Busck

(Generotype, F. lindenella Busck.)

Brush of second joint of labial palpus small, terminal joint longer than second. Fore wings as in *Filatima* Busck, hind wings with M_3 and Cu_1 approximate but separate, RR and M_1 connate. — Male genitalia with uncus very short, upper edge with stiff bristles, gnathos present, valvae divided into three arms, aedoeagus slender, curved, with large bulbous base. Female genitalia : ductus bursae long, coiled, signum a plate with two thorny arms or with spines at each corner. (Figs. 7, 8.).

Sole Hungarian representative of the genus: *vepretella* Z.

5. genus Ornativalva gen. nov.

Labial palpus with deep furrow on second joint, brush very large, compact. Terminal joint 1/1, slender, pointed. Fore wings with R_1 near base (at 1/5), all other nerves equidistant basally, R_{4+5} on long stalk, cell longest between M_{1-3} . Hind wings as broad as fore wings, RR amd M_1 connate or approximate from the sharply jutting upper corner of cell, boundary between M_1 and M_3



absent, M_2 approximate to connate M_2 and Cu_1 . Male genitalia with a large, triangular, semihyaline uncus, gnathos absent, valvae cleft into four long,

Fig. 1—10. Genital organs. — 1: Aroga velocella Dup., \mathcal{J} , dorsolaterally. — 2: Aroga velocella Dup. \mathcal{Q} , laterally. — 3: Bryotropha terella Hbn., \mathcal{J} , laterally. — 4: Bryotropha terella Hbn., \mathcal{Q} , ventrally. — 5: Filatima tephriditella Dup., \mathcal{J} , laterally. — 6: Filatima tephriditella Dup., \mathcal{Q} , laterally. — 6: Filatima tephriditella Dup., \mathcal{Q} , laterally. — 8: Friseria vepretella Z., \mathcal{J} , laterally. — 10: Chionodes oppletella HS., \mathcal{Q} ventrally. — 10: Chionodes oppletella HS., \mathcal{Q} ventrally.

slender arms, aedoeagus pointed, bulbous at base. Female genitalia with long and convoluted ductus bursae, signum very large, a bridge-like structure with sharp thorns at ends. Generotype: *Gelechia plutelliformis* Stgr (Figs. 11, 12). Sole Hungarian representative: *plutelliformis* Stgr.

6. genus Chionodes Hbn.

(Generotype, Chionodes luctificella Hbn, syn. of Tinea lugubrella F.)

Labial brush slightly furrowed, terminal joint pointed, 1/1. Fore wings with M_2 to Cu_2 equidistant, hind wings with RR and M_1 closely approximate, connate or stalked, M_3 and Cu_1 connate or stalked. Male genitalita : uncus large, sometimes bidented, gnathos strong, valvae very variable even within the same species, usually slender and long, also asymmetrical, sometimes rudimentary, aedoeagus long with slender stalk below entrance hole for penis.

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Female genitalia with granulated ductus walls, upper bursal wall usually spiny, signum oval, dentate with stronger serration along its edges. (Fig. 9-10.)

Hungarian species of Chionodes : tragicella Heyd., distinctella Z., oppletella HS., ochripalpella Frey, lentiginosella Z., mulinella Z., perpetuella HS., nebulosella Hein., electella Z., lugubrella Fabr (generotype), viduella F.

7. genus Neofaculta gen. nov.

Labial palpus with well developed furrow, terminal joint 4/3, pointed. Fore wings with R_1 from 1/4, other radial veins and M_1 equidistant, R_{4+5} on long stalk, $M_{2,3}$ and Cu_1 equidistant, subparallel, Cu_2 far removed. Hind wings with short cell, RR and M_1 on long stalk, arched, cross vein visible, M_2 convex



Fig. 11—18. Genital organs. — 11: Ornativalva plutelliformis Stgr., \mathcal{J} , ventrally. Right valva »shut«, left valva »opened«. — 12: Ornativalva plutelliformis Stgr., \mathcal{Q} , laterally. — 13: Neofaculta infernalis HS., \mathcal{J} , laterally. — 14: Neofaculta infernalis HS., \mathcal{Q} , laterally. — 15. Mirificarma maculatella Hbn., \mathcal{J} , laterally. — 16: Mirificarma maculatella Hbn., \mathcal{Q} , laterally. — 17: Lita longicornis Curt., \mathcal{Q} , ventrally.

near M_3 and Cu_1 , connate. Male genitalia with large, pointed uncus (resembling *Aroga* Busck), gnathos large, valva bi-cleft, aedoeagus opening through a hole in horizontally very long vinculum fused to sacculi (!). Female genitalia with bursal ductus also opening on ostial plates, signum spiny, single. The unique

genital characters suffice for delimiting it as a separate genus. Generotype: Gelechia infernalis Stgr. (Figs. 13-14).

Sole Hungarian representative : infernalis HS.

8. genus Mirificarma gen. nov.

Labial palpus with slight, filled-in furrow, terminal joint 1/1. Fore wings with R_1 at 1/3, all other radial veins with diminishing interspaces toward tip, R_{4+5} on very long stalk, M_1 approximate, M_2 approximate to connascent M_3 with Cu_1 . Cu_2 far removed. Hind wings with RR and M_1 either separate (as in generotype *maculatella* Hbn.) or stalked. M_2 rather far from connate M_3 and Cu_1 . Male genitalia with hood-like uncus, hooked gnathos, filamental valvae and shorter, stronger sacculi. Aedoeagus very long, in a long tube of vinculum, with an accompanying and very long filamental prong. Female genitalia with vitelline ductus bursae, and a small, spiny signum. Generotype : *maculatella* Hbn.

That the two species relegated here are in close relationship is evident by their specially constructed male genitalia, and the similarity (like the positive and negative copies of a picture) of their fore wing pattern. (Figs. : 15-16.)

Hungarian species of Mirificarma : maculatella Hbn., cytisella Tr.

9. genus Lita Tr.

(Generotype, Lita zebrella, Tr., syn. of Anacampsis longicornis Curt.)

Labial palpus with very long second joint, brush short and hardly furrowed, terminal joint long. Fore wing with Cu_2 far receded from Cu_1 -Hind wing with RR and M_1 separate at base, nearly parallel. Male genitalia with uncus short, horizontally cut, a row of short bristles along its top, gnathos strong, valvae bicleft, upper long, lower serrated, shorter. Aedoeagus straight with stalk below entrance hole for penis. Female genitalia with two strong and dentate plates as signa. (Figs. 17–18.)

Hungarian species of Lita: solutella Z., longicornis Curt., (=virgella Thnbg.)

10. genus Gelechia Z.

(Generotype, *Tinea rhombella* Schiff.)

Labial palpus with shallow furrow, terminal joint 1/1, pointed. Fore wings with veins M_3 and Cu_2 closely approximate. Hind wings with RR and M_1 closely approximate or stalked. Male genitalia very closely resembling that of *Gnorimoschema* species, but the venation of the hind wings keep them well apart. The best distinguishing factor of the genitalia is the alimentary canal, which is supported by two large flattened rods within tegumen. These are, however, rarely visible in preparations. Uncus soft, hood-like, gnathos a small hook with its base as a soft pillow. Valvae of different forms, bi-cleft, aedoeagus short, scobinate at tip, and usually has a short arm. Female genitalia distinguished by short lateral lobes on the ostial plates, signum diverse, rarely absent (e. g. *rhombella* Schiff.), never like a thorn. (Figs. 19–20.)

Hungarian species of Gelechia: pinguinella Tr., nigra Haw., muscosella Z., rhombella Schiff. (Generotype), rhombelliformis Stgr., basiguttella Hein.,

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sabinella Z., asinella Z., hungariae Stgr., scotinella HS., soroculella Hbn., pyrenaica Petry.

11. genus. Gnorimoschema Busck

(Generotype, Gnorimoschema gallaesolidaginis Riley)

Terminal joint of labial palpus thickened with scales protruding beyond its tip. Second joint with deep furrow, the bordering scales on its two sides »combed« far away from each other. Fore wings with median and cubital veins equidistant. Hind wings with RR and M_1 far removed from each other and subparallel, M_2 approximate to M_3 . Male genitalia like that of Gelechia, but without supporting rods for alimentary canal. Female genitalia without lateral lobes on ostial plates, signum a strong hook, with its flat and large base projecting outside of the bursa.



Fig. 19—24. Genital organs. — 19: Gelechia hungariae Stgr., (lectoparatype), laterally, $3 \cdot - 20$: Gelechia pinguinella Tr., \mathcal{Q} , ventrally. — 21. Gnorimoschema artemisiellum Tr., 3, laterally. — 22: Gnorimoschema artemisiellum Tr., \mathcal{Q} , ventrally. — 23: Caryocolum leucomelanellum Z., 3, laterally, — 24: Caryocolum leucomelanellum Z., \mathcal{Q} , ventrally.

Lately, Gregor and Povolny (Systematische und zoogeographische Studie über die Gruppe der Arten Gnorimoschema Busck mit Rücksicht auf die richtige Diagnostik des Schädlings Gnorimoschema ocellatellum Boyd, Zool. a Entom. Listy, 3 [17], 1954. p. 83–96, Plate VIII) treated this (another very confusing) group of species, erecting the two subgenera Gnorimoschema Busck, and Caryoculum Gregor and Povolny, 1954. On the same ground as stated in the introduction of the present paper, I have a good mind to regard them as very valid genera indeed, — but this should involve a more extensive treatment. As the matter now stands, the species belonging here, — and with regard to Hungarian data only, — can be enumerated as follows :

Hungarian species of subg. Gnorimoschema : pazsiczkyi Rbl., inustellum HS, psilellum HS, artemisiellum Tr., atriplicellum F., proclivellum Fuchs, xanthorhabda Gozm., plantaginellum Hbn., ocellatellum Boyd, instabilellum Dgl., obsoletellum F., tussilaginellum Hein., diminutellum Z., diffluellum Mn., cacuminum Frey., murinellum HS., opificellum Mn., acuminatellum Sircom, salicorniae Her., moritzellum Hbn., hübneri Haw. (Figs. 21–22). Hungarian species of subg. Caryocolum : maculeum Haw., viscariellum Stt., tricolorellum Haw., costellum Westw., maculiferellum Dgl., iunctellum Dgl., marmoreum Haw., alsinellium Z., kiningerellum HS, fischerellum Tr., cauligenellum Schmid., lakatensis Rbl., tachyptilellum Rbl., inflativorellum Klim., census Gozm., inflatellum Chr., vicinellum Dgl., leucomelanellum Z., sesterciellum HS, amaurellum Her., petryi Hofm. (Figs. 23–24).

II. Notes on some other Hungarian Gelechioid forms.

Apatetris trivittella Rbl., (Catatinagma trivittellum Rbl.), new combination. Based on Hungarian specimens caught in the sandy hills of the Isle Csepel and Rákospalota, near Budapest, R e b e l described (Verhandl. z. -b. Ges., Wien, 1903, p. 94–96) a new genus and species, by the name Catatinagma trivittellum. In subsequent literature, this species is never met with again, with the exception of the work of S p u l e r, giving a short diagnosis on page 405, (by the misspent name trivitellum).

In the first caption of his description, R e b e l writes as follows : »In einer Bestimmungssendung, welche ich vor einigen Jahren vom Nationalmuseum in Budapest erhielt, fanden sich zwei Pärchen einer neuen *Douglasiinae* aus Ungarn vor, die ich damals als *»Tinagma Trivittellum* nov. spec.« bezeichnete. Die Stücke trugen die Lokalitätsangaben Budapest, Czepel (sic!) und Palota. Ein mässig erhaltenes Pärchen wurde im Tauschwege für das naturhistorische Hofmuseum erworben, das zweite Pärchen ging an das Nationalmuseum zurück.«

The second pair mentioned above is still in the Collection of the Hungarian Natural History Museum, with the original labels. One of them is in the fist of P \acute{a} v e l, its collector, and of the year 1893. The specimens were not set. They had been pinned in the usual way on a bit of cork »flag« with a heavier pin. The hind wings are not drawn under the fore wings but are well visible, and extended backwards.

R e b e 1 continues as follows : »Eine neuerliche Untersuchung der hiesigen Stücke ergab nun so beträchtliche Verschiedenheiten gegen *Tinagma Z.*, dass die Aufstellung einer neuen Gattung nicht zu umgehen ist, die ich *Catatinagma* nenne.«

To make a long story short, R e b e l described the new genus in all its particulars, together with its venation »soweit es durch Aufhellung erkennbar wurde«; with special emphasis on the hind wings being »lanzettlich . . . « and which ». . . lassen besonders die obere Mittelrippe und Rippe 2 deutlich erkennen. «

Unfortunately, R e b e l did not set the specimens, nor did he make his reiterated examination carefully enough. Consequently, he missed his point by several families, since *trivittellum* (a bona species at least) belongs not to *Douglasiinae* (a distinct family now) but to *Gelechiidae*, and to the head of the genera comprising the family, into the species group *Apatetris* Stgr. The rather long list of synonymies of this genus is now further elongated by *Catatinagma* Rebel 1903, which I synonymize henceforth with *Apatetris* Stgr.

What was the cause of this repeated error in identification? It is a notorious fact that among the genera of *Gelechiidae*, *Apatetris* Stgr, is one which have the longest apices on the hind wings, because of the deeply recurving and cut-out termen underneath them. In consequence of this, the hind wing is almost bilobate and will fold up into a lanceolate shape, resembling remarkably an

Elachistid or Douglasiid form. So also did veins RR and Cu_1 attain a false prominence.

The name of the species will be *Apatetris trivittella* Rbl. Even the localities of the collectings speak for its relegation to this genus. As far as are known, all *Apatetris* species live on monocotyledonous plants, notably *Gramineae*. The sandy and rather barren dunes of Csepel and Palota (now a suburb of Budapest) show preponderantly grassy vegetation, with just a few other psammophilous herbs. Most probably, also this species will live on some species of grass.

Trivittellum Rbl., had not been caught since the time of the description. The probabilities are that, being too small, it had evaded the attention of Hungarian collectors up to date, who were always on the lookout for the bigger and traditionally »rare« macrolepidoptera of the Hungarian sand Plains. Thus, I designate the two original species, as »lectotypes« of the species *Apatetris trivittella* Rbl.

Apatema fasciata Stt. — As Dr. A m s e 1 has recently shown, this is a very much valid genus, and not a synonym of *Oegoconia* Stt. So is the species *fasciata* Stt. To this species I draw now, as a new synonym, R e b e l's variety *minor*, of *Oegoconia quadripuncta* Hw. Variety *minor* is nothing else nor less than *fasciata* Stt.

Of the still unknown life-history of this moth, nothing can as yet be said with any certainty. No one, as far as I know, has ever bred it. We are better off, however, concerning its habits. *Fasciata* Stt. had been caught in many localities in Hungary in recent times, and always in the clearings, or around the edges, of *Quercus pubescens* forests. In June and July, this moth flies in abundant numbers onto the light of the collecting lamps in such places, and can therefore be regarded as a stenocoen and characteristic species of the plant association Quercetum pubescentis. We have the following data of its distribution in our country : Kisbalaton (Diássziget), Nadap (Mts. Velence and its slopes, north of Lake Velence), Sukoró (Mts. Velence), Nagykovácsi : Hársbokorhegy (in the hills west of Budapest). All these places are in the area of the Transdanubium. We have also a single specimen from the alderwoods of the Ócsa marshes, which border on oaky woods of the Plains. (This specimen is also much abraded, indicating extensive flight).

When one has a rather large series of this species, it can be easily distinguished (apart from its utterly different venation) from *Oegoconia quadripuncta* Haw., by the bone-white color of its transverse bands (yellowish in *quadripuncta* Haw.), its more gross scaling (smooth in the other species), its smaller and uniform size (quadripuncta being sometimes twice as big, yet also with equally small specimens too). Moreover, quadripuncta Haw., is very frequent in the alderwoods of Ócsa, as in any other biotop of Hungary.

Pyroderces klimeschi Rbl. (*Cosmopterygidae*). — In 1938, R e b e l described a new *Pyroderces* species from Hungary (Z. öst. Ent. Ver., 23, 1938. p. 5.). It was caught in the area of the Kisbalaton, in the reedy marshes of the SW corner of Lake Balaton. Dr. J. K l i m e s c h collected a series of both sexes of this moth. Up to now, no other locality of its occurrence had been known until, in 1952, I succeeded to catch two male specimens in the big, marshy alderwoods of Ócsa, Com. Pest. In this (and the following) year, a group of investigators (to which I also belonged) were conducting a series of coenological surveys in the alderwoods, with quantitative collectings by the use of the light of several lamps. Among the nightly, considerable amounts of moths

caught, two *»argyrogrammos«* species proved eventually to be *klimeschi* Rbl. The identification is reliable, as Dr. K I i mesch very kindly gave me in exchange a cotype specimen from his original material. In the Kisbalaton territory, there are no extensive alderwoods; yet both places are swampy areas so that *klimeschi* Rbl., seems with some certainty to be a characteristical micro of Hungarian marshy territories.

Tetanocentria ochraceella Rbl. – Again, R e b e l described (Verh. z.-b. Ges. Wien, 1903, p. 99) a new species of his above genus, erected a year before, by the name *ochraceella*. The single specimen, a female, had been captured by Prof. W. Krone, 20. July, 1898, »im Parke von Schönbrunn (Vienna)... an einem Eichstamm«. That only the cited specimen had been caught is proven also by the fact that there is not even a name label of this species in K r o n e's Collection, kept now in the Collection of the Hungarian Natural History Museum. Neither do I know of any other data or capture of this curious species. Then, almost exactly 50 years later, two specimens were caught in Western Hungary, in the Transdanubium. I caught the first one, 24 July, 1951, on the dry slopes of the Mts. Velence, north of Lake Velence. These well insolated slopes have a typical stype flora, and are bordered on the north by Quercus pubescens forests. The other specimen had been collected by Mr. M. N a t t á n, in the oak forest of the Nádasdi-erdő, Kaposvár, SW Hungary. Both specimens were attracted by lamp-light. It seems that this species frequents warm oakwoods and clearings. It is to be recorded that R e b e l's description is very good. Curiously, both recent specimens are also females, so the male has to be found vet.

III. Notes on Hungarian Coleophoridae

Of all the species groups of *Coleophora* Hbn., the one causing the most difficulties in the identification of specimens, is Group M of H e i n e m a n n. Whilst the species of all other groups have more or less good identifying characters in their external morphological features, those comprising Group M have none. They possess a striated pattern alongside or between the veins, their basic color is mostly various hues of brown of yellowish-grey to grey, they are more or less inspersed with dark scales, — but all these elements range from sharply defined ones to wholly diffused markings. Even within the confines of one species, coloration and pattern vary to such extent that their description is sometimes meaningless. If it were not for the genital organs, it would prove to be a hopeless task and a misspent time to rightly identify a specimen belonging to the species of this group.

Workers until recently relied too much on the external characters, and, consequently, described forms which eventually proved to be synonyms of older species; or, conversely, did not perceive valid species represented by specimens relegated to some known species in their cabinets. There is, in most collections, a veritable »promiscuity« of species, many new forms still being hidden by older names. The more should therefore be S. To 11's monumental work appreciated on the »Eupistid« species of Poland (Family *Eupistidae (Lepidoptera)* of Poland, Docum. Physiogr. Pol., Nr. 32, 1952. pp. 292, + Tab. XXXVIII), as this paper is, besides being the base for any attempt to clarify taxonomical or collection problems, the most comprehensicve and reliable treatise on the group concerned. Led by the supreme drawings of the genital armatures, any worker painstaking enough will faultlessly identify old species,

or have a sure starting point for further work in the descriptive task of new forms.

Since Hungarian zoologists are working now on comprehensive studies of the fauna of Hungary, experts have to tackle also the most difficult groups. In the possession of Toll's paper, I am in the position now to better work out the specimens belonging to Heinemann's Group M, in our Collection. This group is Group 30 of Toll's system. And, by making preparations of all specimens in our possession, I am glad to report, as also the justification of what I said above, that the 25 species of this group in the Collection of the Hungarian Natural History Museum hid yet 19 other species, and some yet unidentified and probably new species. For zoogeographical and etological purposes. I give their annotated list below.

absinthii Hein. = Peszér (in coll. O s t h e l d e r, det. R e b e l). adspersella Ben. = Budafok (20. VII. 1919, e. 1.), Dinnyés (in the reeds, 8. 10. VIII. 1951), Pásztó (13. VII. 1949), Pécel (25. VII. 1909).

argentula Zell. = Budaőrs (Mts. Csiki, 23. VIII. 1949), Csepel (16. V. 1897), Isaszeg (11. VIII. 1951), Ócsa (alderwoods, 10. VIII. 1952).

artemisiae Mühlig = Budafok (20. VII. 1917, e. 1.)

artemisicolella Brd. = Budafok (6. VI. 1913), Budapest (Paskál malom, 26. VII. 1896, and Svábhegy, 16. VII. 1898), Bátorliget (swamp, 1. VII. 1949), Ócsa (alderwoods, 4. VIII. 1952).

caespititiella Z. = Csorna (19. V. 1898), Vörs (in coll. Osthelder); these are data taken from literature, and open to doubts, since the determinations were made on external grounds only.

dentiferella Toll = Budaőrs (Mts. Csiki, 23. VIII. 1949).

dianthi HS. = Budafok (23. IV. 1916), Budakeszi : Hársbokorhegy (14. V. 1952, e. 1.), Fót (18. VII. 1953).

directella Z. = Gyón (5-10. 1919, e. 1.)

edithae Gozm. = Budapest (Farkasvölgy, Svábhegy, Széchenyihegy, 12, V. 1913, 20. IV. 1910, all other dates as given for the paratypes in Rov. Közl. S. N. 4, 1951. p. 70). erigerella Ford = Gönc (29. VIII. and 1. IX. 1950), Simontornya 13. VIII. 1910, = C.

vitisella Gregs, det. R e b e l. There are no cranberrys for hundreds of kilometers around Simontornya!)

fischeri Toll = Budaőrs (28. VIII. 1954).

flavaginella Z. = Budafok, Budaőrs, Budapest, Ócsa, Rákospalota, Simontornya, of various dates, from August and September.

galatellae Hering = Budapest (Sashegy, 11. V. 1925).

glaucicolella Wood = Bátorliget (swamp, 29. VI. and 1. VII. 1949, = caespitiella Z., det. G o z m á n y), Fonyód (in reeds, 12. VII. 1925), Fót (21. VII. 1951), Lovasberény (oakwoods, 7. VI. 1951), Ocsa (very common in the marshy alderwoods, in June and July, to the beginning of August).

gnaphalii Z. = Kaposvár (27. VII. 1950).

halophylella Zimm. = Agard (on the soda shores of Lake Velence, 15. VIII. 1951), Dinnyés (on the soda shores of lake Velence, and among the reeds, common, 10. VIII. 1951), Balatonmária (soda soils, 1. IX. 1953), Kunszentmiklós (classical Hungarian soda plains, 8. IX. 1911).

hungariae Gozmány = Pákozd (reedy shores of Lake Velence, 29. VII. 1949).

hydrolapathella Hering = \hat{O} csa (common in the marshy alderwoods in July, to the beginning of August).

inulae Wck. = Zalavár (in the woods of Lake Kisbalaton, 7. VI. 1950).

inulifolia Ben. = Bátorliget (swamp, 29. and 30. VI. 1949. = therinella Tngstr. det. G o z m á n y), Dinnyés (in the reeds, 10. VIII. 1951), Kisbalaton (isle Diás, 13. VII. 1950), Ocsa (very common in the marshy alderwoods, but collected in June only). The specimen from Dinnyés seems to indicate a second generation.

klimeschiella Toll = Nyir (near Kecskemét, 17. V. - 5. VI. 1942). Group 7 of Toll!

laripennella Ztt. = Budapest, Budaőrs, Csepel, Izsák, Ócsa, Pécel, Rákospalota (common everywhere, from the middle of August till the end of September).

lineariella Zell. (sensu K l i m e s c h) = Ágasegyháza (sand hills, sacks on Solidago, 14. October, 1954).

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motacilella Z. = Kaposvár (13. VIII. 1925).

murinipennella Dup. = Óbuda (1. V. 1893).

niveistrigella Hein. = Budapest (15. VI. 1897), Csepel (14. IV. 1918, 12. IV. 1934). odorariella Mühlg. = Budapest (Farkasvölgy, 5—10. VI. 1918, e. 1. Jurinea mollis). otitae Z. = Budaőrs (Mts. Csiki, 23. VIII. 1949), Csepel (18. VI. 1905, sack), Gyón (10. VI. 1918. e. 1. Silene otites), Kaposvár (14. VIII. 1952), Nadap (Templomhegy, 31. V. 1951

and sacks), Tihany (4. V. 1934).

palumbipennella Toll = Isaszeg (11. VIII. 1951).

peribenanderi Toll = Simontornya (14. V. 1921, = troglodytella Dup. det. R e b e l). pratella Z. = Budapest (1893).

silenella HS. = Budafok, Budaőrs, Budapest, Bátorliget, Bagolyirtás, Fót, Isaszeg, Királyhalom, Ócsa, Peszér, Uzsapuszta (common in a late spring and early autumn generation).

sobrinella Toll = Simontornya (8. VI. 1920. = argentula Z. det. R e b e l), Sukoró (styep vegetation on slopes with outcropping granite, 4. VIII. 1951.). There is a further specimen from the Mts. Retyezát (Roumania, 1300 m, 31. VII. 1927). This is the more interesting find as the species was described based on a single male specimen from »Amasia, Kleinasien«. The type is in Berlin. (Mitt. d. Deutsch. Ent. Ges. E. V., 13, 1944. p. 35.). sternipennella Ztt. = Budapest (Zugliget, 17. VIII. 1947).

striatipennella Nyl. & Tngstr. = Kaposvár (27. VI. 1953, 14. VII. 1951.), Ócsa (alderwood swamps, 19. VIII. 1952), Simontornya (1. V. 1920, = murinipennella Dup. det. R e b e l). According to these data, there are two generations.

sylvaticella Wood. = Nyavalyás (Mts. Bükk, 9. VI. 1954, among Lunzula alba), Uzsapuszta (27. V. 1952, = etelka Gozmány).

taeniipennella HS. = Gárdony (soda shores of Lake Velence, 13. VII. 1951), Nadap (Templomhegy, oakwoods, 13. VIII. 1951), Ocsa, (marshy alderwoods, 4. and 19. VIII. 1952).

tamesis Waters = Pécel (no date, = troglodytella Dup., det. U h r y k), Simontornya (10. and 12. VI. 1920, a series determined by R e b e l as = therinella Tngstr.).

tanaceti Mhlg. = Kaposvár (14. VI. 1953).

therinella Tgstr. = Fehérvárcsurgó (29. VIII. 1949), Gönc (30. VIII. 1950), Kisbalaton (isle Diás, 13. VII. 1950), Nagysalló (11. VIII. 1934), Ócsa (common in the marshy alderwoods, from middle of July till end of August), Simontornya (17. VI. 1919. = nutantella Mhlg. det Rebel, 25. VI. 1919, = graminicolella Hein. det. Rebel, 21. VIII. 1919, = nutantella Mhlg. det Rebel!)

troglodytella Dup. = Budakeszi: Hársbokorhegy (31. VII. 1952), Kaposvár (20. VI. 1953), Nadap (Templomhegy, 13. VIII. 1951). versurella Z. = Budapest, Fonyód, Gönc, Kaposvár, Ócsa, Simontornya (this latter

determined by R e b e 1 as = therinella Tingstr.) of all dates, from the beginning of June to early September.

virgaureae Stt. = Kelebia (shores of a reedy lake, 31. VII. 1951), Tompa (oakwoods) on sand, 30. VII. 1951), Ócsa (edge of alderwoods, 12. VIII. 1952).

Finally, there are some specimens which seem to belong to new species. Some of them are females, and they may belong to species of which only the males are known as yet. For a secure description longer series, embracing both sexes, are wanted. Such specimens were collected at :

Spec. 1. = Budapest (Rózsadomb, 21. VIII. 1910).

Spec. 2. = Budaőrs (Mts. Csiki, 2 specimens from 23. VIII. 1949), Ócsa (alderwoods, 8. VIII. 1949), Pásztó (15. VII. 1949), and a specimen from Torda (Roumania, 29. V. 1911). All are females.

Spec. 3. = Budafok (19. VI. 1912).

Spec. 4. = Rákospalota (no date, a female).

Spec. 5. = Budapest (Rozsadomb, 8. VIII. 1910, a female). In the above anumeration of the 44 species, I have not taken into account literature. data which had been based on external identification only. In this respect, one cannot rely either on the older Hungarian data (of the Fauna Regni Hungariae, for example), or on the results of more recent investigations. As the above comments in brackets prove beyond all doubts, no Coleophora species belonging to Group 30 of T o 11's system can be said to be faultlessly identified until its genital organs are examined.

Jegyzetek magyarországi Gelechioidea és Coleophora-fajokról

Irta: Gozmány László, Budapest

Szerző B u s c k-nak az északamerikai Gelechia Hbn., és rokon fajokon végzett rendszertani és taxonómiai vizsgálatait kiterjeszti a magyarországi fajokra. Az ivarszervi és külső alaktani egyezések alapján a hazai Gelechida fajok 10 nembe tartoznak. Ezek közül három újnak bizonyult. A három új nem a következő fajokat öleli fel: Ornativalva plutelliformis Stgr., Neofaculta infernalis HS., és Mirificarma maculatella Hbn., cytisella Tr. A továbbiak során a Catatinagma trivittellum Rbl.-t az Apatetris trivittella Rbl.,

A továbbiak során a *Catatinagma trivittellum* Rbl.-t az *Apatetris trivittella* Rbl., szinonimjává süllyeszti, és ugyancsak szinonimizálja az *Oegoconia quadripuncta* var. *minor* Rbl.-t az *Apatema fasciata* Stt.-hoz. E fajról megállapítja, hogy az a hazai Quercetum pubescentis növénytársulások egyik jellemző molylepkefaja, akarcsak a *Pyroderces Klimeschi* Rbl., a hazai mocsarakénak. Ezt a ritka fajt Magyarországon újabban Ócsán találták. Kitér a velencei hegységben és Kaposvárott gyűjtött *Tetanocentria ochraceella* Rbl. fajra is, amelynek eddig csak az egyetlen bécsi típuspéldánya volt ismeretes.

Végül közli a hazánkban eddig gyűjtött és T o 11 új rendszerének 30. csoportjába tartozó Coleophora fajok ivarszervi vizsgálatának eredményeit, amelynek során megállapítja, hogy a hazánkból eddig ismert 25 faj között még 19 olyan faj lappangott, amelyet eddig nem ismertek fel. Ezek tehát Magyarország faunájára újak. Közöttük több olyan van, amelyek eddig csak Lengyelországból, Franciaországból, Ausztriából, Csehszlovákiából, ill. Kisázsiából voltak ismeretesek.