

DATA TO THE KNOWLEDGE ON THE LEPIDOPTERA FAUNA AT BODROGZUG

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Abstract

Author presents data to the knowledge on the lepidoptera fauna at Bodrogzug, collected at the Bodrog delta in the Summer aspects. For the evaluation, as a base for comparison, a review is given in respect to the more important dominance values of two light-traps alongside the Tisza river, and a list is presented of the collected 108 species, their classification according to foster-plant types, as well as a picture of the *Hypenodes orientalis* STAUDINGER.

Bodrogzug is one of the most beautiful and most manifold parts of the Tokaj Environment Protection Area, the state of which is inordinately influenced by the frequently changing water output of the Tisza and Bodrog rivers. The area's exploration in respect to its flora and fauna is still in progress nowadays. With his data of collections and observations, author wishes to contribute to one of the partial objectives of this collective work; to the knowledge on the lepidoptera fauna at Bodrogzug.

It is well known that several years' continuous work is necessitated for the complete exploration of an area's lepidoptera fauna, which is firstly performed with the help of lighttraps and other complementary collections. Since there were no possibilities for this, only occasional collections and a total of seventeen studies were performed between the period June 19 and August 28, 1983. With the help of H. lamp functioning with generator, during the course of the collections performed with hand-net, 733 individuals of 108 species were collected and one further species was observed only. For the relative surveying of the mass ratios every individual which flew on the cloth on the effect of light and those which could be caught at day-time, resp., were collected.

Evaluation could not be prepared regarding classification according to aspects, as well as seasonal changes because the number of collections were few and could not at all be considered as continuous. The seventeen days were only 8% of the vegetation period, thus these could only be mentioned as sampling from the associations of the Summer and late Summer aspects.

Vegetation

The Bodrogzug, together with the Szatmár—Beregi-plain and the Rétköz, belongs to the Northern—Lowland district of the Lowlands floristic region. The continental elements are still retraceable amidst the remnant vegetation of the sand

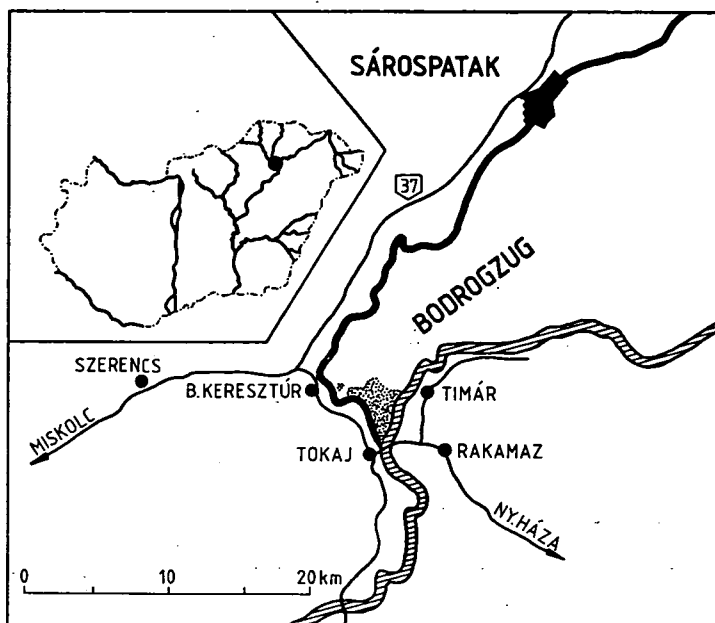


Fig. 1

patches (*Erysimum diffusum*, *Helichrysum arenarium*, *Gypsophila paniculata*, etc.). Circumpolar heath-fern, buck-bean, featherfoil (*Hottonia palustris*) and Eurasian cicuta (*Cicuta virosa*) can be found at the diminished marsh-remains. Willow gallery forests are found contiguously at the Tisza flood-plain and in reduced or eradicated form along the Bodrog. The tree stand is made up of silver willow, brittle willow with many black and trembling poplars, and common alder at places. Sweet-grass (*Glyceria maxima*) and bulrush (*Typha latifolia*) grow in relatively scant reeds. Dewberry is abundant at the shrub stratum. Furthermore, great patches of common nettle are found diversified with rice-grass.

Study results

On the basis of the data obtained at Bodrogzug, South from Bodrogkeresztur and Timár, at seventeen sites (from flood-plain to tide land plant community types found at the described area) with the help of lamplight and day-time catches by net, the classification according to foster-plant types developed as follows: 49 (45.3%) from species living on soft-stalked and water-plants, 25 (24%) from species feeding on willow and poplar leaves, 7 species (6.4%) from animals living on high dry stalks, 5 species (4.6%) from those living on shrubs, 3 (2.7%) from species consuming leaf-litter and 2 (1.8%) from those feeding on pine elements. The foster-plant of further two species is unknown in science; and one of each had been caught (*Pyrgus armoricanus* OBTH and *Hypenodes orientalis* STAUDINGER, det. RONKAY L.).

Studies on the composition of the collected data displayed mountain-effect. The highlands near the Bodrog, the regions of which give surprises for lepidopterology

even today, show their effect both in the flora and in the lepidoptera fauna, and even at other areas. Regarding the *Cichorium*, the *Leontodon*, the *Frangula* and *Alnus*, furthermore the *Sambucus* and *Galeopsis* as well as the *Lamium* and *Ballota*, *Thymus serpyllum*, the *Astragalus* and *Colutea* foster-plants, these are not at all typical flood-plain plants, and do not occur regularly at the Lowlands either; just as the *Cucullia umbratica* L., *Angerona prunaria* L., *Perizoma alchemillata* L., *Celastrina argiolus* L. and the *Cupido minimus* FUESSL. are not of flood-plain origin either. It is noteworthy that during the first days of August such a mass swarm of the *Maculinea arion* L. was detectable, that some individuals even roved in the streets of the city Tokaj. The situation of the *Sphinx pinastri* L. and the *Dendrolimus pini* L. is also unambiguous, since there are no pines at Bodrogzug.

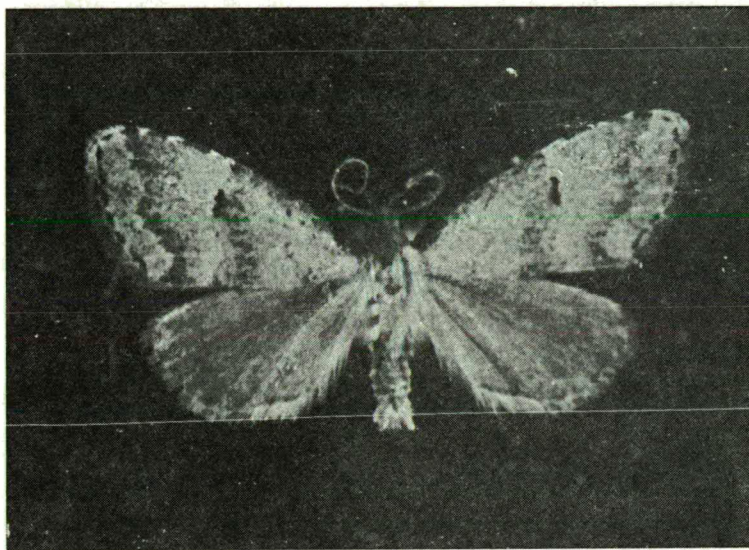


Fig. 2 *Hypenodes orientalis* STAUDINGER, Bodrogzug 1983. 08. 03. leg. S. T. KOVÁCS det. L. RONKAY

The collection reflects the main phytological characteristics of the studied area and its environs well. The species living on willow and poplar leaves form the stock of the fauna, and these are less endangered by floods. The species living on soft-stalked plants and at the herb stratum (grouping here those living on the roots of one year old plants as well as in rhisomes, too) mostly die out from the flood-plain at the time of greater inundations, then get to the flood-plain by way of regular resettlement, meaning at the same time that they find a living place necessary for their maintenance beyond the dams as well. Those species of the flood-plain are in advantageous position which experience the inundation in the imago stage. There was only one flood in 1983, as the consequence of which the number of animals living on soft-stalked plants and various grass types was rather high (59.7%).

Studying the mass ratios of the collection, the following sequence could be determined:

In the list the data of points 5. and 6. are striking. Because of their amount, their hazardous character at this area is out of the question. The phenomenon could rather be explained by the fact that the plants fond of warmth moved down from

the nearby warm hills to the warmer areas at the dams, and with them also certain lepidoptera species. This is probably the cause for the higher incidence of the *Lisandra thersites* cant., too. The data of 10—10 dominant species from the collection of two light-traps alongside the Tisza river may serve for demonstrating how the lepidoptera fauna of the flood-plain is influenced by the animals living at the areas on the protected side.

Mártély (1971: 154 species, 1382 individuals)

Körtvélyes (1979: 134 species, 1300 individuals)

On the basis of these data both communities could correspond to a not water-side, but lowland-stock, since the species bound to (fond of?) the flood-plain or to water fell into the trap in a much smaller number, e.g.: one individual of the *Gastropacha populifolia* appeared at Mártély and fifteen at Körtvélyes, and such example could also be experienced in other cases.

In any case, the flood-plain stock is made picturesque and at the same time more ordinary by the modulation facility of the protected side. This is also why the mountain-effect of the nearby hills prevails at Bodrogzug.

Further organized investigations are necessary to gain knowledge on the lepidoptera fauna at Bodrogzug. This work would greatly be promoted by the functioning of a few light-traps. Data survey on the basis of individual collections demands several years' work, which is not sufficient in full, either.

Table 1. List of the collected species (on the basis of the namings used by L. KOVÁCS)

ZYGAENIDAE

Zygaena achilleae ESP. 2 ind.

Geometridae

Clorissa viridata L. 2 ind.
Calorhyanis amata L. 8 ind.
Scopula immorata L. 5 ind.
Scopula immutata L. 4 ind.
Scopula flaccidaria Z. 1 ind.
Sterrha muricata HUNFN. 4 ind.
Sterrha aversata L. 1 ind.
Mysticoptera sexalata RETZ. 30 ind.
Xanthorhoe ferrugata L. 1 ind.
Oerizoma alchemillata L. 4 ind.
Pelurga comitata L. 4 ind.
Eupithecia centaureata SCHIFF. 1 ind.
Lomaspilis marginata Li 7 ind.
Lomographic dilectaria HBN. 5 ind.
Angerona prunaria L. 10 ind.
Epione repandaria HUNF. 11 ind.
Macaria alternaria HBN. 6 ind.
Chiasmia clathrata L. 8 ind.
Tephrina murinaria SCHIFF. 6 ind.
Ascotis selenaria SCHIFF. 14 ind.
Ectropis bistortata GOEZE 8 ind.
Ematurga atomaria L. 5 ind.

Noctuidae

Hypenodes orientalis STGR. 1 ind.
Rivula sericealis Sc. 2 ind.
Catocala elocata Esp. 2 ind.
Macdunnoughia confusa STPH. 5 ind.
Chryspidia festucae L. 3 ind.

Bena prasinana L. 1 ind.
Nycteola asiatica KRUL. 4 ind.
Emmelia trabealis Sc. 8 ind.
Eustrotia bankiana F. 9 ind.
Eustrotia condidula SCHIFF. 15 ind.
Athetis gluteosa HUNFN. 2 ind.
Caradrina morpheus HUNFN. 1 ind.
Archanara geminipuncta HAW 7 ind.
Archanara sparganii Esp. 17 ind.
Hydraecia micacea Esp. 2 ind.
Ipimorpha retusa L. 3 ind.
Apatele rumicis L. 4 ind.
Derthisa glaucina Esp. 1 ind.
Cucullia umbratica L. 2 ind.
Mythimna albipuncta SCHIFF. 10 ind.
Mythimna pallens 28 ind.
Mythimna conigera SCHIFF. 13 ind.
Mythimna turca L. 11 ind.
Mamestra suasa HBN. 2 ind.
Mamestra oleracea L. 9 ind.
Discestra trifolii HUNFN. 2 ind.
Amathes c-nigrum 14 ind.
Diarsia rubi VIEW. 12 ind.
Ochropleura plecta L. 5 ind.
Sctoia exclamatiois L. 11 ind.
Sctoia setegum SCHIFF. 4 ind.

Nolidae

Roeselia albula SCHIFF. 2 ind.
Celama centonalis HBN. 2 ind.

Lymantriidae

Leucoma salicis L. 10 ind.
Lymantria dispar L. 2 ind.

Arctiidae		<i>Ochlodes venatum</i> BREM.	3 ind.
<i>Pelosia muscarda</i> HUNF.	4 ind.	<i>Carcharodus alceae</i> ESP.	4 ind.
<i>Phragmatobia fuliginosa</i> L.	8 ind.		
<i>Spilosoma menthastris</i> ESP.	13 ind.	Pieridae	
<i>Spilosoma urticae</i> ESP.	9 ind.	<i>Leptidea sinapis</i> L.	
<i>Diaphora mendica</i> CL.	3 ind.	<i>Pontia daplidice</i> L.	8 ind.
<i>Diacrisia sannio</i> L.	16 ind.	<i>Pieris rapae</i> L.	7 ind.
		<i>Pieris napi</i> L.	1 ind.
Notodontidae		<i>Colias croceus</i> FOURC.	1 ind.
<i>Harpypia furcula</i> CL.	3 ind.		
<i>Gluphisia crenata</i> ESP.	6 ind.	Papilionidae	
<i>Notodonta ziczac</i> L.	12 ind.	<i>Papilio machaon</i> L.	1 ind.
<i>Pterostoma palpinum</i> L.	4 ind.		
<i>Clostera anastomosis</i> L.	5 ind.	Lycaenidae	
<i>Clostera curtula</i> L.	9 ind.	<i>Thersamonia dispar</i> HAW.	2 ind.
<i>Clostera anachoreta</i> F.	1 ind.	<i>Thecla quercus</i> L.	2 ind.
		<i>Lycaeides argyrognomon</i> BERGSTR.	3 ind.
Sphingidae		<i>Lycaeides idas</i> L.	2 ind.
<i>Hyloicus pinastri</i> L.	1 ind.	<i>Plebejus argus</i> L.	2 ind.
<i>Smerinthus ocellata</i> L.	4 ind.	<i>Everes argiades</i> PALL.	3 ind.
<i>Amorpha populi</i> L.	5 ind.	<i>Cupido minimus</i> FUESSL.	4 ind.
<i>Macroglossa stellatarum</i> L. (megfigyelt)		<i>Lysandra thersites</i> CANT.	8 ind.
<i>Pergesa elpenor</i> L.	6 ind.	<i>Polyommatus icarus</i> ROTT.	4 ind.
<i>Pergesa porcellus</i> L.	14 ind.	<i>Celastrina argiolus</i> L.	2 ind.
		<i>Lysandra coridon</i> PODA	7 ind.
Thyatiridae		<i>Maculinea arion</i> L.	20 ind.
<i>Habrosine pyrithoeds</i> HUFN.	28 ind.		
<i>Tethea</i> or F.	15 ind.	Nymphalidae	
		<i>Issoria lathonia</i> L.	2 ind.
Lasiocampidae		<i>Clossiana dia</i> L.	1 ind.
<i>Gastropacha populifolia</i> ESP.	24 ind.	<i>Melitaea trivia</i> L.	20 ind.
<i>Dendrolimus pini</i> L.	1 ind.		
		Satyridae	
Hesperidae		<i>Coenonympha pamphilus</i> L.	19 ind.
<i>Pyrgus malvae</i> L.		<i>Minois dryas</i> SC.	7 ind.
<i>Pyrgus armoricanus</i> OBTH.	1 ind.		

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Adatok a Bodrogzug lepkefaunájának ismeretéhez Tokaj térsége

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Kivonat

A szerző adatokat szolgáltat a Bodrogzug lepkefaunájának ismeretéhez, melyeket a nyári aszpektusokban a Bodrog torkolatvidékén gyűjtött. Az értékeléshez, viszonyítási alapként ismerteti két Tisza-menti fénycsapda fontosabb dominanciaértékeit, közli a gyűjtött 108 faj jegyzékét, azok tápnövényeik szerint való csoportosítását, valamint a *Hypenodes orientalis* STAUDINGER fényképét.

Данные для ознакомления с фауной бабочек

Бодрозуга

Район Токай

Ковач Ш. Т.

Резюме

Автор приводит данные для ознакомления с фауной бабочек устья реки Бодрог, собранных им в летний период. Для сравнительной их оценки приводятся результаты двух световых приманой, расположенных возле реки Тиса. Автор приводит список 108 видов собранных бабочек, дает их классификацию по кормовым растениям, а также фотографию изображающую *Hypenodes orientalis* ITARDINGER.

Prilog poznavanju faune leptira Bodrozug (područje Tokaj-a)

Kovács S. T.

Abstrakt

Rad predstavlja prilog poznavanju faune leptira Bodrozug, područje ušća reke Bodrog. Materijal je sakupljen u toku leta. Prikaz je izvršen na osnovu analize dominantnih vrednosti pomoću dve svetlosne klopke duž Tise. Za 108 konstatovanih vrsta data je faunistička lista, te njihovo grupisanje po biljkama hraniteljicama. Data je fotografija vrste *Hypenodes orientalis* STAUDINGER.