



2nd European Moth Nights

1st–3rd July 2005, a scientific overview (Lepidoptera: Macrolepidoptera)

Ladislau REZBANYAI–RESER, Mihály KÁDÁR & Harald SCHREIBER (translation)

(The translator understood it as an honour to have been asked to do the translation. He succeeded to do so with the kind help of R. DESMOND KIME, who accepted proof reading. The English version of „overview” on the 1.EMN, translated by GERGELY PETRÁNYI & GÁBOR KOCSY, has been helpful.)

Abstract: On behalf of the „József Szalkay Lepidopterological Society of Hungary” and the „Entomological Society of Luzern” (Switzerland) the first two authors for the most part organized the international event „2nd European Moth Nights” („2.EMN”) between 1st–3rd July 2005 (+/-1 day). On the given days, lepidopterists were invited to simultaneously collect or observe nocturnal moths (Macroheterocera) for the second time at any European location of their choice, and report to EMN Headquarters the results obtained. The event set itself the basic goal of establishing contacts between moth-collectors in Europe, creating a geographically wide-ranging snapshot of the moths flying in the same period and drawing attention to moths in general, as well as to the high ratio they represent in the system of nature and their present protection requirements.

A total of 400 persons from 23 countries (in rank order of numbers from the Netherlands 139, Germany 46, Finland 31, Hungary 30, Great Britain 28 and from Switzerland 28) took an active part in the event. Altogether, 380 localities in 24 countries (in numerical order from the Netherlands 139, Germany 53, France 24, Austria 20, Finland 17, Hungary 17 and Switzerland 15) were involved. The number of localities is more than twice as high in comparison to the 1st EMN 2004). These localities cover Europe, looked at horizontally from Great Britain (Cornwall) to the Ukraine and from Portugal to the Scandinavian countries and ranged vertically from zero (0 m) up to 1700 m above sea level. 975 Macrolepidoptera species were able to be observed by this method within five days (some important subspecies included additionally) (2004: 850). This number is about 35.7% of the total number of nocturnal moth species (Macrolepidoptera) known in Europe. The total number of the 1.+2.EMN is 1165 (42.7% of the fauna of Europe concerned).

Attention is drawn again to several species complexes whose specimens can not be determined from their appearance only, furthermore to problems of determination in the recording of moths in general. Species recorded of almost all localities and of almost all countries are listed, in addition those recorded as very common in at least one locality (more than 100 specimens) or recorded as relatively common (30-99 specimens) (as far as recorders reported quantity data).

Some remarkable species and subspecies are discussed separately. Attention: In this connection the present publication contains five subchapters which might be cited as separate original publications too.

- ZAHM, N.: The present state of our knowledge about *Cilix hispanica* DE-GREGORIO, TORRUELLA, MIRET, CASAS & FIGUERAS, 2002 with reference to *Cilix asiatica* (BANG-HAAS, 1907) (Lepidoptera: Drepanidae).
- REZBANYAI-RESER, L.: Statement about the taxonomic status of *Hylaea fasciaria* (LINNAEUS, 1758) and *prasinaria* (DENIS & SCHIFFERMÜLLER, 1775) (Lepidoptera: Geometridae).
- REZBANYAI-RESER, L.: A renewed statement against the independence of *Diachrysis chrysitis* (LINNAEUS, 1758) and of *tutti* (KOSTROWICKI, 1961) =? *stenochrysis* (WARREN, 1913) as species, with regard to DNA-analyses of both taxa, recently carried out by other researchers (Lepidoptera: Noctuidae).
- LEHMANN, L.: In respect to knowledge and dispersal of *Acontia (Tarachidia) candefacta* (HÜBNER, [1831]) in the Ukraine (Lepidoptera: Noctuidae).
- REZBANYAI-RESER, L.: Statement of the taxonomic legitimacy of *Coscinia cribraria punctigera* FREYER, 1843 (non = *pannonica* DANIEL, 1955) on subspecific level (Lepidoptera: Arctiidae).

Apart from these taxa, problems in respect to *Horisme tersata* D.SCH. and *radicaria* LAH. (species easily mixed up) and in respect to *Noctua janthina* D.SCH. and *janthe* BKH. (most probably two former subspecies only, highly differentiated genetically and melting into each other today) are reported.

A call for another two European Moth Nights (April 28th-30th, 2006 and October 12th-14th, 2007) has been released and the organizers hope that European specialists may possibly participate in much higher numbers at these events. – Information can be obtained from the most important addresses to be found at the end of this article. A list of participants, localities and the species observed is published in tables. The complete table of results can also be obtained at the indicated internet sites.



INTRODUCTION

Following the event „1st European Moth Nights (1.EMN)” on August 13th-15th, 2004 on behalf of the „József Szalkay Lepidopterological Society of Hungary” and the „Entomological Society of Luzern” (Switzerland), organized for the most part by the first two authors, a fresh call was issued for the 2nd European Moth Nights (2.EMN) from July 1th-3rd, 2005. Most of the organising, collecting and systematisation of results as well as their evaluation was undertaken again by the first two authors for the most part. In some countries however essential help in organization had been offered, which contributed a lot to the success of the 2.EMN.

At this event, all possible experts on moths, should – on the nights of a given period 3(+2) days, at a place in Europe chosen by themselves – make observations of moths, summarize the data and send them to a central data base. For several important reasons however only Macrolepidoptera are considered. Aims the EMN hopes to achieve are to promote the establishment of contacts and joint work of European researchers on moths, to present a wide-ranging snapshot on the moths flying in a given period of time within Europe, to collect the locality data and findings obtained in a data bank, to make them available to the general public and to further research respectively as well as to draw attention to the needs of protection of moths once more.

Locality data and comments to it („evaluation”) obtained at the 1.EMN 2004 may be looked up on the internet at the following addresses: <http://lepidoptera.fw.hu> and <http://www.european-moth-nights.ch.vu>. The German original version of the results together with tables containing names of participants, localities and recorded Macrolepidoptera were also published in the German journal „Atalanta”:

REZBANYAI-RESER, L. & KÁDÁR, M. (2005): 1. Europäische Nachtfalter Nächte („1st European Moth Nights“), 13.-15.VIII.2004, eine wissenschaftliche Bilanz (Lepidoptera, Macrolepidoptera). – Atalanta, 36 (1/2): 311-358.

In this evaluation of the 1.EMN 2004, published in the internet though in 5 languages (English, German, Hungarian, French and Rumanian, the abstract furthermore in Italian), some general topics were discussed apart from the results, like aims of the event in detail, methods asked in respect to the technical realization of the EMN, reasons for restriction on Macrolepidoptera, thoughts about problems of determination and methods of collecting, furthermore special thoughts on the conservation of moths. With respect to these topics the authors would like to repeat themselves only exceptionally and refer to the texts in the evaluation of the 1.EMN 2004.

The call to the 2.EMN 2005 was also published at the internet sites of the Hungarian society and of the first author, adopted by several homepage owners, published in some entomological journals, furthermore sent directly via e-mail or regular mail to numerous lepidopterists. The organizers received in the end different shorter or longer lists of species from numerous colleagues in the months July-December 2005. Some tables were received via e-mail again, accurate and completely filled in, many others, likewise via e-mail, but received with different shortcomings with respect to the desired data, had to be, as far as possible, supplementarily collected and filled in. Several completely or inadequately completed tables were received again, this time by regular mail, and had to be fed in by the organizers themselves. This was a lot of work, which would have been partially avoidable if participants would have undertaken the effort to use and complete the designed EMN-basic table, distributed and also published via the internet. Nevertheless the organizers have not rejected any data received and are also personally grateful to all colleagues who have participated to the best of their ability.

In the end the lists, which had been prepared as well as possible, were put together in a summarized table. This table is available in totality at the two web sites cited below and at the disposal of all lepidopterists for any further research or utilization, with the source of data indicated only.

We have to emphasize here that all senders were personally responsible for the data they sent, including those of localities as well as species determination. The two authors solely limited themselves to ask for additional information in some problematic cases. Any question that might occur should be addressed to the various submitters of data; the authors will be pleased to mediate whenever necessary.

THE PARTICIPANTS

A total of 400 persons took part in the event (table 1a-c), some of them completely on their own, others in pairs or threesomes, while in some cases several colleagues were present together on the same day. These are more than twice as many than at the 1.EMN (154), which is very pleasing. This number is somewhat misleading, although, as well upwards as downwards. On the one hand the total number of participants is distinctly higher, if we also include all spectators of the different events. On the other hand, the 400 registered persons are by no means 400 lepidopterists, but



among them numerous non-lepidopterists as active coworkers of the experts or reporters of single data of conspicuous moths, which had somewhere been photographed or observed only on July 1st-3rd. We look at them likewise as adequate participants of the 2.EMN.

From the point of view of the nationality of the participants, 23 countries are represented (map 1) (number of 1.EMN 2004 in brackets):

AT = Austria 13 (3), BE = Belgium 3 (2), BG = Bulgaria 1 (3), CH = Switzerland 28 (9), DE = Germany 46 (23), EE = Estonia 8 (5), ES = Spain 5 (11), FI = Finland 31 (4), FR = France 15 (8), GB = Great Britain 28 (11), HU = Hungary 30 (15), IT = Italy 8 (11), LT = Lithuania 1 (0) MT = Malta 9 (12), NL = the Netherlands 139 (16), NO = Norway 1 (1), PL = Poland 8 (2), PT = Portugal 3 (2), RO = Romania 15 (10), SE = Sweden 2 (2), SK = Slovakia 1 (1), SM = San Marino 3 (0), UK = Ukraine 2 (0).

The highest number of participants by far came from the Netherlands (139), where a national night of moths was officially organized on July 1st, 2005. It is especially true for this country that many participants were either coworkers only or handed in only very short lists of species, often only details of singular observations (cf. localities below). – Germany is in the second place (46), where however most of the registered participants really are active lepidopterists. From the countries next to follow, Finland (31), Hungary (30), Great Britain (28) and Switzerland (28) again several „opportunity-entomologists” were among the participants.

It is of special significance to point out that 12 of the participants collected beyond the frontiers of their own countries. So it should not be forgotten that it is possible to participate in this event in any country of Europe, even if somebody is abroad, on holiday, on some business trip or in transit on the given days.

ACKNOWLEDGEMENTS

We acknowledge in the first place naturally the colleagues who took an active part in the event, by collecting or observing and submitting data on localities (see table 1).

Apart from the two authors (for Switzerland and Hungary, respectively) the following colleagues collaborated as official „EMN-ambassadors” at the 2.EMN: DICK GROENENDIJK (the Netherlands), NORBERT HIRNEISEN (Germany), KRZYSZTOF JONKO (Poland), IGOR KOSTJUK (Ukraine), MICHAEL KURZ (Austria), PAUL SAMMUT (Malta), JAAN VIIDALEPP (Estonia) and CSABA T. VIZAUER (Romania).

As translators of different material for the 2.EMN above all the following colleagues were active: ZSOLT DOBOS (the Netherlands), CLAUDIO FLAMIGNI (Italy), GERGELY PETRÁNYI (Hungary), ANTOINE SIERRA (Switzerland) and CSABA T. VIZAUER (Romania).

Among further colleagues who helped the two organizers in some way with different minor things, advice, ideas or with coordination work in their own country, the following above all shall be mentioned with special thanks (we apologize if somebody eventually is omitted by accident): MATTI AHOLA (FI), JORDI DANTART (ES: Catalonia), ANTONY R. JAMES (GB: Cornwall), KARL KISER (CH), LUTZ LEHMANN (DE), NICOLE LEPERTEL (FR), ATTILA PÁL (HU), VILMOS POLONYI (HU), ERWIN SCHÄFFER (CH), LUDGER WIROOKS (DE), HANS-PETER WYMANN (CH), NORBERT ZAHM (DE).

Special thanks go to the Dutch organizations „De Vlinderstichting“ and „EIS-werkgroep Vlinderfaunistiek“, personally to WILLEM ELLIS and DICK GROENENDIJK, for the transference of locality data, which were collected for the most part on the occasion of the Dutch National Moth Night on July 1st, 2005.

PLACES OF INVESTIGATION

The number of the places of investigation totals 380 (table 2a-b). This is not identical with the number of participants, as in some places several persons were present together, others, in turn, collected using light in several localities during those five nights. The number of the countries here (24) is also higher than that of the participants, since in Croatia only a foreigner but not a native lepidopterist was active. The localities cover Europe, looked at horizontally, from Great Britain (Cornwall) to the Ukraine and from Portugal to the Scandinavian countries and range vertically from zero (0 m) up to 1700 m above sea level.

The breakdown of the 380 places of investigation by countries (24) is as follows (map 2) (number of 1.EMN 2004 in brackets):

AT = Austria 20 (3), BE = Belgium 4 (2), BG = Bulgaria 3 (4), CH = Switzerland 15 (11), DE = Germany 53



(17), EE = Estonia 9 (6), ES = Spain 14 (18), FI = Finland 17 (5), FR = France 24 (9), GB = Great Britain 13 (10), HR = Croatia 1 (1), HU = Hungary 17 (19), IT = Italy 7 (13), LT = Lithuania 2 (0), MT = Malta 5 (9), NL = the Netherlands 139 (10), NO = Norway 2 (2), PL = Poland 10 (3), PT = Portugal 2 (2), RO = Romania 12 (9), SE = Sweden 3 (1), SK = Slovakia 1 (1), SM = San Marino 3 (0), UK = Ukraine 4 (0).

The list is headed here too by the Netherlands with 139 localities, the number of localities is with the number of Dutch participants absolutely identical only by accident. The high number is somewhat misleading this time again since the number of localities with reports of more than 9 species is only 74. From 65 localities only occasional data of 1 to 9 species were received. – Next in the list follows Germany again with 53 localities (51 of them with more than 9 species). Other countries in this line are France (24), Austria (20), Finland (17), Hungary (17) and Switzerland (15).

Finally, let us mention the countries and areas from which no data whatsoever have been received:

Albania, Andorra, Balearic Isles (ES), Belorussia, Bosnia-Herzegovina, Czech Republic, Corsica (FR), Cyprus, Denmark, Gibraltar (GB), Greece, Ireland, Iceland, Latvia, Liechtenstein, Luxembourg, Macedonia, Moldavia, Monaco, Northern Ireland (GB), Russia, Sardinia (IT), Sicily (IT), Slovenia, Turkey (European part) and Yugoslavia. – Many of these countries have acknowledged lepidopterists. We hope that some of the gaps will be abridged in the course of the next European Moth Nights (see below)! In contrast to the 1.EMN San Marino, Lithuania and Ukraine are missing from this list of shortcomings on this occasion, where research had been carried out on the occasion of the 2.EMN, but surprisingly Denmark got to be added to it. Furthermore, rather distressing the list of shortcomings represents Ireland, first of all, most of the Balkan States, the Mediterranean Isles (with the exception of Malta), the Czech Republic and Russia once more.

PROBLEMS REGARDING DETERMINATION AND THE METHOD OF COLLECTING

Several general remarks were pointed out in the evaluation of the 1.EMN 2004 in respect to problems of determination and the methods of collecting. Naturally numerous species have been reported this time again for species that are hard to determine, sometimes only identifiable by their genital organs. In most cases, senders made no mention about the determination of such species. For that reason correspondents are specially asked to indicate species identified on the basis of genital preparation in the submitted lists. A separate column has therefore been arranged in the EMN basic table.

In this EMN list (tab. 4), the following pairs or groups of species appear to be the most problematic at first sight:

DREPANIDAE: *Cilix glaucata/hispanica*; GEOMETRIDAE: *Scotopteryx luridata/mucronata*, *Thera variata/britannica*, *Ennomos* spp., *Nychiodes* spp., *Tephronia* spp., *Chlorissa* spp., *Cyclophora* spp., *Idaea* spp., *Horisme tersata/radicaria*, *Eupithecia* spp., *Rhinoprora* spp., *Aplocera plagiata/efformata*, *Macaria alternaria/notata*; NOTODONTIDAE: *Furcula* spp.; NOCTUIDAE: *Acronicta cuspis/tridens/psi*, *Cryphia* spp., *Plusia festucae/putnami*, *Abrostola* spp., *Cucullia* spp., *Shargacucullia* spp., *Amphipyra pyramidea/berbera*, *Heliothis viriplaca/maritima*, *Paradrina* spp., *Hoplodrina* spp., *Oligia* spp., *Mesapamea* spp., *Amphipoea* spp., *Hydraecia* spp., *Diarsia rubi/florida*, *Euxoa* spp.; NOLIDAE: *Nola* spp., *Nycteola* spp.; ARCTIIDAE: *Eilema complana/pseudocomplana*, *Eilema pygmeola/lutarella*, *Setina* spp., *Spilosoma lubricipeda/urticae*.

If special, unusual, but not verifiable records (locality, date) enter literature, it is most of the time impossible ever to delete them from knowledge, which is thus falsified once and for all time. Examples of unusual species or dates (e.g. autumn moth in July) should always be kept (which however makes it necessary unfortunately to recognize the „unusual“). If no examples of them can be presented, data should rarely be stored in a data base or be indicated with a question mark. Possible wrong data would otherwise be never erasable, which unfortunately is several times the case today.

Lepidopterology is no deathly serious science, nobody will die when mistakes are made (unfortunately also thousands upon thousands of published mistakes do exist!). Nevertheless it is important that a science is taken seriously as far as possible, in fact by amateur lepidopterists too, who should be seen as natural scientists without exception. However it is certainly not easy to perfectly translate this theory into practice.

It is a great problem in general, not to be able to study the fauna of Lepidoptera really sufficiently reliably on „observations“ and that data banks often lack information whether only observations are concerned eventually. In the case of „observations“ species, which can only be determined by genitalia, they can't be identified correctly, thus they are either ignored or mistaken with another species. One might for that matter, mistake the most common and actually easily identified species with each other too, completely without control. This has already expressly been pointed out in the evaluation of the 1.EMN. – The first named author goes through all arriving EMN-lists prior to evaluation (more than 16.000 Excel-data records were concerned at the 2.EMN!) and always inquires of the submitters of data about



problems in obvious cases. But he cannot notice all mistakes too without having had a look. He has often proved right about his doubts so far, when submitters of data studied their documentary specimens again. Still, in some of these cases, the submitter was unable to check the questionable determination since he had seen no documentary specimen unfortunately but only a note or a photo. In such cases doubt has been left open, and extremely questionable data have even been deleted or distinguished with a question mark. This concerns also some „well known and common“ species, like e.g. representatives of the following genera:

– *Mesapamea*, *Oligia*, *Amphipyra*, *Abrostola*, *Amphipoea*, *Hydraecia* (Noctuidae):

Unfortunately there are some species, of which older (and partially also more recent) locality data should be deleted in data banks or registered under double names. Everything is otherwise more or less wrong and makes actually no sense at all. It makes no sense at all to write in a list of localities: „*Pieris napi* or *rapae*“, „*Papilio machaon* or *Iphioides podalirius*“, „a horse or a cow“, etc.! Every expert would smile about that. But it is the case e.g. with „*Mesapamea secalis*“, which comprises at least 4 (but eventually even 5) species in continental Europe, which can only be determined on the basis of genitalia (the argument, *Mesapamea remmi* would be a hybrid between *secalis* and *didyma*=*secalella* is speculative and totally unproven today!) *Amphipyra pyramidea* and *berbera* too have not been distinguished by anybody in former times and only by a few collectors today also, amongst them unfortunately such upon their not always characteristic appearance. The same concerns of the *Oligia*-species in Europe above all *latruncula* and *versicolor* but also *dubia*, of *Amphipoea* above all *fucosa* and *lucens* (but also *oculea*), of *Hydraecia* above all *micacea*, *ultima* and *nordstroemi*, of the *Abrostola*-species *triplasia* (= *trigemina*), *asclepiadis* and *agnorista* (but for beginners also *tripartita* = *triplasia* auct.). Not to speak of the nomenclatural confusion in the case of *triplasia* = *trigemina* and *tripartita* = *triplasia*, which makes it impossible to know what some lepidopterist understands by the name „*triplasia*“ today!

The circumstance that quite a number of such European species complexes are already known today (even in butterflies: *Leptidea sinapis* and *reali*) complicates correct faunistic and other lepidopterous work of amateurs and of professional entomologists decisively if they do not regularly carry out genitalia preparation in series. In this matter Entomological Societies and professional lepidopterists should achieve something more, but most of them most probably don't do so altogether. The „collectors“ are either left alone, or they have, most frequently, no courage, no diligence or no interest to further educate themselves. It plays an important part in this respect that human life is too short. As soon as an expert has achieved all the absolutely necessary knowledge he/she will shortly be one step from the grave!

Lepidopterists! Try to educate yourself permanently and be not satisfied with such determination as: „*Mesapamea secalis* or *didyma*“, or: „a cat or a mouse“.

DISCUSSION OF THE RESULTS

Systematics, taxonomy and nomenclature

We based our list of species (systematics, taxonomy, nomenclature and numbering of species) again on the checklist of Europe by KARSHOLT and RAZOWSKI (KARSHOLT, O. & RAZOWSKI, J. 1996: The Lepidoptera of Europe. A Distributional Checklist. – Apollo Books, DK-Stenstrup). Though we don't agree to nor are satisfied with all details of this system, and we are not alone in this, we do consider K & R to be the most practical one, until a similar, extensive, better European list is published. It will most probably never be achievable anyhow to compile such a list of Lepidoptera for Europe, which is going to please everyone concerned with respect to systematics, taxonomy and nomenclature.

But this does not mean however, that in the list of species of the 2.EMN no divergence compared with K & R 1996 is to be found:

- Such names of species or genera of any taxon, which were validated only after 1996, and which are known by the authors, are listed as synonyms, marked here however as „valide sp.-name“ or „valide genus-name“ (=at present valid species, genus name, respectively).
- Species, missing in the catalogue of KARSHOLT & RAZOWSKI 1996, have been integrated and characterized with tenths to the number (e.g.: 9102.1 *Acontia candefacta* HBN., arranged after No 9102 sensu K & R 1996).
- The attempt was made to list separately taxonomical particularly important subspecies, which were not given in K & R 1996. These have been characterized with hundredths to the number (e.g. nominal subspecies: 8048.00 *Scopula submutata submutata* TR., a further ssp. of the same species: 8048.01 *Scopula submutata nivellearia* OBTH.).



- IMPORTANT: We have refused here to look at the taxa *Noctua janthina* and *janthe*, as well as *Diachrysis chrysitis* and *tutti* (= *stenochrysis*?) (Noctuidae) as „bona species“, genetically separated from each other. The imagines of these pairs of taxa are in many cases not clearly distinguishable from each other, neither habitually nor by genitalia. For this reason numerous individuals, namely the obvious forms of transition, can only be assigned under compulsion. Yet, numerous researchers on moths do not even register these separately. It was for these reasons too, in the practice of the EMN, applied so far, never clearly understandable what in fact had been reported. – See in addition also comments in the evaluation of the 1st EMN 2004 as well as further down (chapter „taxonomic remarks, faunistic peculiarities“).

The „Macrolepidoptera“ species reported

Although weather conditions were less than optimal again at many localities, the 400 collaborators were able to record altogether 975 „Macroheterocera“ species (some special subspecies and six „diurnal“ species included) from 380 localities on the 2.EMN 2005 (table 4, map 3) (1.EMN 2004: 850 spp.). In the course of only five calendar days, this amounts to as much as 35.7% of the about 2730 nocturnal Macrolepidoptera species given for the whole of Europe in the 1996 checklist of KARSHOLT & RAZOWSKI! The table of results contains 16.079 series of data (Excel-table lines). It can only be published on the internet because of its size (see sites below). These are more than twice as many than at the 1.EMN 2004 (6.825).

As a result the number of species and more important subspecies recorded at the 1. and 2.EMN totals 1.165 (42.7% of the fauna of Europe concerned). 190 of these (16.3% of the 1.165 recorded species) have only been recorded at the 1.EMN, in comparison to 315 (27.0%) at the 2.EMN. The number of species and subspecies recorded in both years consequently totals 660 (56.7%).

- The species reported from the highest number of places were the following:

Agrotis exclamationis 198, *Idaea aversata* 178, *Apamea monoglypha* 168, *Lomaspilis marginata* 165, *Noctua pronuba* 161, *Spilosoma lubricipeda* 153, *Axylia putris* 149, *Hoplodrina octogenaria* 147, *Protodeltote pygarga* 142, *Rusina ferruginea* 141, *Biston betularia* 135, *Diachrysis chrysitis* 130, *Deilephila elpenor* 127, *Cabera pusaria* 127, *Hemithea aestivaria* 127, *Phalera bucephala* 126, *Xestia triangulum* 126, *Spilosoma lutea* 125, *Habrosyne pyritoides* 120, *Alcis repandata* 120, *Lacanobia oleracea* 115, *Thyatira batis* 106, *Trachea atriplicis* 103, *Hypena proboscidalis* 102, *Euplexia lucipara* 97, *Hypomecis punctinalis* 96, *Oligia strigilis* 95, *Mythimna impura* 94, *Eilema complana* 93, *Peribatodes rhomboidaria* 92, *Oligia latruncula* 92, *Eilema lurideola* 89, *Ochropleura plecta* 88, *Macaria liturata* 85, *Melanchra persicariae* 84, *Chiasma clathrata* 83, *Cosmia trapezina* 83, *Apamea crenata* 83, *Chloroclystis v-ata* 82, *Hyloicus pinastri* 81, *Ourapteryx sambucaria* 80, *Hypomecis roboraria* 79, *Eulithis pyraliata* 79, *Autographa gamma* 77, *Ectropis crepuscularia* 76, *Phragmatobia fuliginosa* 75, *Zanclognatha tarsipennalis* 74, *Cabera exanthemata* 73, *Miltochrista miniata* 73, *Epirrhoe alternata* 72, *Diarsia mendica* 72, *Xestia c-nigrum* 72, *Laothoe populi* 71, *Geometra papilionaria* 71, *Acronicta megacephala* 70, *Smerinthus ocellata* 69, *Opisthograptis luteolata* 69, *Rivula sericealis* 69, *Cidaria fulvata* 68, *Dypterygia scabriuscula* 68, *Cybosia mesomella* 68, *Deilephila porcellus* 66, *Diarsia brunnea* 66, *Idaea biselata* 65, *Caradrina morpheus* 65, *Macaria alternata* 64, *Stauropus fagi* 64, *Apoda limacodes* 63, *Angerona prunaria* 62, *Pterostoma palpina* 62, *Laspeyria flexula* 62, *Sphinx ligustri* 61, *Malacosoma neustria* 60, *Hydrelia flammeolaria* 60, *Perizoma alchemillata* 59, *Herminia grisealis* 59, *Noctua comes* 59, *Ochropacha duplaris* 58, *Mythimna ferrago* 58, *Agrotis clavus* 57, *Campaea margaritata* 56, *Mythimna comma* 56, *Rhinoprora rectangulata* 55, *Hoplodrina blanda* 53, *Macaria notata* 51, *Xanthorhoe montanata* 51, *Herminia tarsicrinalis* 51, *Lacanobia thalassina* 51, *Anaplectoides prasina* 50.

- The species reported from the highest number of countries were the following (table 5):

Alcis repandata, *Phalera bucephala*, *Autographa gamma* (19), *Smerinthus ocellata*, *Idaea dimidiata*, *Diachrysis chrysitis* (incl. *tutti* / *stenochrysis*), *Rusina ferruginea*, *Oligia strigilis*, *Ochropleura plecta*, *Agrotis exclamationis* (18), *Deilephila elpenor*, *Biston betularia*, *Cabera pusaria*, *Pterostoma palpina*, *Stauropus fagi*, *Hypena proboscidalis*, *Protodeltote pygarga*, *Hoplodrina octogenaria*, *Dypterygia scabriuscula*, *Apamea monoglypha*, *Apamea crenata*, *Lacanobia oleracea*, *Spilosoma lutea* (17).

- The following 35 spec. (3.6%) have been reported in high frequency (110-1000 specimens) from at least one locality: PSYCHIDAE: *Taleporia tubulosa*; DREPANIDAE: *Ochropacha duplaris*; GEOMETRIDAE: *Calospilos sylvata*, *Lomaspilis marginata*, *Ennomos quercinaria*, *Arichanna melanaria*, *Idaea rusticata*, *Idaea dilutaria*, *Perizoma albulata*; NOTODONTIDAE: *Thaumetopoea processionea*; NOCTUIDAE: *Acronicta rumicis*, *Craniophora ligustri*, *Paracolax tristalis*, *Lygephila pastinum*, *Hypena proboscidalis*, *Protodeltote pygarga*, *Hoplodrina octogenaria*, *Parastichtis suspecta*, *Cosmia trapezina*, *Apamea monoglypha*, *Apamea crenata*, *Oligia latruncula*, *Mesapamea secalis*



(incl. *didyma?*), *Lacanobia thalassina*, *Polia nebulosa*, *Mythimna pudorina*, *Diarsia mendica*, *Diarsia brunnea*, *Noctua pronuba*, *Noctua janthina* (incl. *janthe*), *Agrotis exclamationis*; LYMANTRIIDAE: *Lymantria dispar*; ARCTIIDAE: *Lithosia quadra*, *Eilema depressa*, *Eilema lurideola*.

– The following 227 species /subspecies (23.3%!) have only been recorded from a single locality (table 4):

HEPIALIDAE: *Korscheltellus lupulina*; PSYCHIDAE: *Proutia betulina*, *Bruandia norvegica*, *Epichnopteryx plumella*, *Megalophanes viciella*, *Phalacropteryx graslinella*; ZYGAENIDAE: *Jordanita chloros*, *Adscita geryon*, *Aglaope infausta*, *Zygaena loti*, *Zygaena viciae*; SESIIDAE: *Sesia apiformis*, *Paranthrene tabaniformis*; COSSIDAE: *Dyspessa salicicola*; LASIOCAMPIDAE: *Psilogaster loti*, *Gastropacha populifolia*; SATURNIIDAE: *Aglaia tau*, *Saturnia pyri*; SPHINGIDAE: *Laothoe amurensis*, *Hemaris tityus*, *Hyles hippophaes*, *Hyles livornica*, *Hippotion celerio*; HESPERIIDAE: *Thymelicus lineola*; NAMPHALIDAE: *Vanessa cardui*, *Pyronia cecilia*, *Melanargia galathea*; GEOMETRIDAE: *Stegania dilectaria*, *Macaria artesiaria*, *Semiothisa aestimaria sareptanaria*, *Narraga tessularia*, *Isturga limbaria*, *Itame vincularia*, *Neognopharmia stevenaria*, *Rhoptria asperaria*, *Petrophora narbonea*, *Eilicrinia cordiaria*, *Nychiodes waltheri*, *Menophra nycthemeraria*, *Paraboarmia viertlii*, *Peribatodes correptaria*, *Cleora cinctaria*, *Alcis bastelbergeri*, *Paradarsia consonaria*, *Cabera leptographa*, *Campaea honoraria*, *Megaspilates mundataria*, *Dyscia conspersaria*, *Chlorissa faustinata*, *Microloxia herbaria*, *Bustilloxia saturata*, *Eucrostes indigenata*, *Cyclophora quercimontaria*, *Scopula tessellaria*, *Scopula nemoraria*, *Scopula umbelaria*, *Scopula ochraceata*, *Idaea determinata*, *Idaea sericeata*, *Idaea filicata*, *Idaea efflorata*, *Idaea belemiata helianthemata*, *Idaea inquinata*, *Idaea minuscularia*, *Idaea camparia*, *Idaea contiguaria*, *Idaea rhodogrammaria*, *Idaea exilaria*, *Idaea hispanaria*, *Rhodostrophia discopunctata*, *Lythria purpuraria*, *Cataclysmo dissimilata*, *Scotopteryx moeniata*, *Scotopteryx octodurensis ibera*, *Scotopteryx mucronata*, *Xanthorhoe annotinata*, *Catarhoe putridaria*, *Nebula tophaceata*, *Nebula nebulata*, *Chloroclysta miata*, *Chloroclysta infuscata*, *Pennithera firmata*, *Colostygia olivata*, *Horisme corticata*, *Horisme aemulata*, *Triphosa sabaudiata*, *Euphyia scripturata*, *Perizoma lugdunaria*, *Perizoma obsoletaria*, *Eupithecia laquaearia*, *Eupithecia extraversaria*, *Eupithecia cauchiata*, *Eupithecia goossensata*, *Eupithecia impurata*, *Eupithecia graphata*, *Eupithecia gelidata*, *Eupithecia virgaureata*, *Carsia sororiata imbutata*, *Aplocera annexata*, *Lithostege farinata*, *Asthenes anseraria*, *Epilobophora sabinata*; NOTODONTIDAE: *Pygaera timon*, *Clostera anastomosis*, *Furcula bicuspis*, *Gluphisia crenata*, *Harpyia milhauseri*; NOCTUIDAE: *Oxicesta geographica*, *Acronicta menyanthidis*, *Acronicta euphorbiae*, *Craniophora pontica*, *Simyra nervosa*, *Cryphia receptricula*, *Cryphia fraudatricula*, *Cryphia vandalusiae*, *Cryphia ereptricula*, *Victrix umovii*, *Schrankia taenialis*, *Catocala conversa*, *Minucia lunaris*, *Clytie illunaris*, *Grammodes bifasciata*, *Lygephila lusoria*, *Lygephila ludicra*, *Lygephila procax*, *Autophila limbata*, *Autophila asiatica*, *Callistege mi*, *Arytrura musculus*, *Hypena palpalis*, *Zebeeba falsalis*, *Euchalcia consona*, *Lamprotes c-aureum*, *Diachrysia zosimi*, *Autographa buraetica*, *Syngrapha ain*, *Abrostola agnorista*, *Acontia candefacta*, *Phyllophila oblitterata*, *Alvaradoia numerica*, *Pseudeustrotia candidula*, *Odice arcuinna*, *Eublemma minutata*, *Cucullia argentina*, *Cucullia xeranthemi*, *Cucullia lactucae*, *Cucullia chamomillae*, *Cucullia gnaphalii*, *Shargacucullia thapsiphaga*, *Shargacucullia verbasci*, *Calophasia platyptera*, *Calophasia opalina*, *Omphalophana antirrhinii*, *Epimecia ustula*, *Aegle vespertalis*, *Aegle vespertinalis*, *Schinia scutosa*, *Heliothis maritima bulgarica*, *Paradrina susciana*, *Spodoptera littoralis*, *Proxenus hospes*, *Proxenus lepigone*, *Mormo maura*, *Phlogophora scita*, *Apamea maillardi*, *Apamea zeta pernix*, *Eremobina pabulatricula*, *Luperina testacea*, *Hydracra micacea*, *Chortodes (morrissii?) sohnretheli*, *Chortodes elymi*, *Chortodes brevilinea*, *Discestra sodae*, *Discestra hartigi*, *Lacanobia blenna*, *Hecatera cappa*, *Hadena andalusica*, *Hadena caesia grisea*, *Polia serratilinea*, *Mythimna joannisi*, *Mythimna umbrigerana*, *Mythimna andereggii*, *Mythimna loreyi*, *Panolis flammea*, *Ochropleura leucogaster*, *Diarsia florida*, *Lycophotia erythrina*, *Rhyacia simulans*, *Rhyacia arecacea*, *Spaelotis ravidata*, *Xestia speciosa*, *Xestia ashworthii jotunensis*, *Protolampra sobrina*, *Euxoa decora flavorenalis*, *Euxoa hastifera*, *Euxoa nigricans*, *Euxoa eruta*, *Dichagyris vallesiaca*, *Agrotis ripae*, *Agrotis trux*; PANTHEIDAE: *Trichosea ludifica*; LYMANTRIIDAE: *Ocnieria ledereri*, *Orgyia recens*; NOLIDAE: *Nola confusalis*, *Nola chlamitulatis*, *Nycteola degenerana*, *Nycteola asiatica*; ARCTIIDAE: *Paidia rica*, *Apaidia mesogona*, *Eilema pseudocomplana*, *Eilema lutarella*, *Eilema rungsi*, *Setina roscida*, *Spiris striata*, *Parasemia plantaginis*, *Hyphantria cunea*, *Diaphora mendica*.

– The highest total numbers of species are to be found in the following countries (table 3):

Switzerland 448, Germany 419, France 337, Austria 334, Romania 329, the Netherlands 319, Hungary 316, Ukraine 303 and Spain 301.

Faunistic novelties

One target of our event is to find eventually any novelties too for the fauna of Europe, of single countries or even greater parts of countries. Not all kind of minor details, but „true“ peculiarities really are the salt in the soup! To achieve this, we need more engagement and pleasure to communicate with our colleagues in lepidopterology, who know their own area most of the time much better than we do. The EMN-ambassadors too should be especially watchful and active in this respect.



Only two not especially exciting new records have been reported this time, namely *Cabera leptographa* in the Ukraine for the first time and *Lampropteryx otregiata*, new for Vorarlberg, Austria (this species is not known in the neighbouring Switzerland). – It is rarely possible to „boast” with such peculiarities like e.g. „157 species new to the fauna of the Republic of San Marino”. However, nocturnal moths have apparently hardly been collected in this small country so far. But most of the species, which have now been recorded, were known from the more distant surroundings on Italian ground, surely for a long time.

Republic of San Marino, new land for lepidopterous research

To „drag” this small country (61 km²) into the happening of EMN, the first named author (R-R) got the idea in spring 2005 to travel in connection with the EMN to San Marino at the beginning of July and to study the moths there too. Ideas were followed by actions in the company of ERWIN SCHÄFER (CH-Luzern). After the EMN event in southern Switzerland both went to San Marino. CLAUDIO FLAMIGNI (IT-Bologna) joined them on the way too. This small company has been given a warm welcome by the Director ANDREA SUZZI VALLI and his collaborators (MADDALENA BEVITORI and SANDRO CASALI) in San Marino at the „Centro Naturalistico Sammarinese“ (in Borgo Maggiore). Many thanks!

Three localities were chosen at once for the investigations at night and the results are quite respectable: altogether 157 species of Macrolepidoptera at the 3 localities, amongst them several especially interesting faunal components, like above all *Cilix hispanica* DE-GREGORIO et al. 2002 (Drepanidae) (see below). A separate publication about these findings is in preparation.

It turned out at the same time that serious investigations on Lepidoptera in the area of San Marino have perhaps never been done. The area of this small country is looked at as part of Italy in the catalogue of KARSHOLT & RAZOWSKI 1996 and only 8 species of Lepidoptera are registered today for San Marino in the current catalogue of the European fauna (March 2006) on the internet (<http://www.faunaeur.org/statistics.php>). Though much research has been done in the neighbouring parts of Italy (Emilia-Romagna), (e.g. FIUMI, BERTACCINI, FLAMIGNI), it little concerns the immediate surroundings of the Republic of San Marino.

REZBANYAI-RESER plans to study the fauna of Macrolepidoptera of the Republic of San Marino further on in the following years and therefore asks all of those who would possibly like to collect Lepidoptera in this country, or have collected already, to get in contact with him personally, or with the head office of „Centro Naturalistico Sammarinese“ and to communicate their locality data.

Taxonomic remarks, faunistic peculiarities

The separate subchapters, supplied with the name of the author, might also be cited as independent original publications together with the given titles, by adding „..... – in: REZBANYAI-RESER, KÁDÁR & SCHREIBER (transl.): 2nd European Moth Nights, 1st-3rd July 2005, a scientific evaluation (Lepidoptera: Macrolepidoptera)”.

– *Cilix hispanica* PEREZ DE-GREGORIO et al., 2002 (Drepanidae):

The present state of our knowledge about *Cilix hispanica* DE-GREGORIO, TORRUELLA, MIRET, CASAS & FIGUERAS, 2002 with reference to *Cilix asiatica* (BANG-HAAS, 1907) (Lepidoptera: Drepanidae).

(Author: NORBERT ZAHM, Ludwig-Uhland-Strasse 34, DE-66839 Schmelz-Hüttersdorf; e-mail: NZahm@t-online.de)

2. European Moth Nights 2005:

- IT Abruzzo (TE), Penna S. Andrea, Riserva Naturale Regionale Castel Cerreto, *Quercus cerris* Wood, inside, 580 m, 1.7.2005, 1 specimen, leg. M. DELL'AGATA & A. DE ASCENTIS, det. N.ZAHM & J.DANTART.
- SM San Marino, Monte Cucco, bosco, 350 m, 4.7.2005, 4 specimens, leg. L.REZBANYAI-RESER & E.SCHÄFFER, det. L.REZBANYAI-RESER.

About this most probably Atlanto-Mediterranean species, which resembles *C.glaucata* in appearance, discovered in Spain and found in Southern France later on, has already been briefly reported in the evaluation of the 1. EMN. *C.hispanica* has now been recorded from Central Italy and San Marino too on the occasion of the 2.EMN. These however are not the first records from the Apennine Peninsula (see MAZEL et al., 2003). N.ZAHM had discovered 11 specimens of this species in the Majella and the area close by (Abruzzi) between 1982 and 2000, A.SCIARRETTA several in the region Molise in both provinces (Campobasso and Isernia), as he has demonstrated on a poster in 2005.

One record exists also from Monte Vulture (Basilicata) (MAZEL et al., 2003). The species is present outside of Europe in Algeria too (MAZEL et al., 2003 and N.ZAHM in prep.).

According to locality data, available to the author, *C.hispanica* develops on the Apennine-Peninsula in three not sharply separated generations from April to October.

From its habitus *C.glaucata* is easily separated from *C.hispanica* by its extensive grey spot in the centre of the forewing. In Southern Europe, however, this spot is that much reduced within the summer generation of *C.glaucata* (f.*aerugitana* TURATI), so that a correct determination should follow on the basis of genitalia investigation.

The most important differences on the basis of genitalia morphology: In *C.glaucata*-males the uncus is bifurcate (two parallel socii, actually), the subscaphium is very long and narrow, terminal with a small hook, the arms of the transtilla are very long, with well-rounded endings, the saccus is big (from a lateral view), about half as wide as long, the aedeagus short, strong and almost straight. The male of *C.hispanica* is characterized by a well-rounded wide uncus, two laterally sticking out socii, with wide bases and pointed ends, a short, very strong subscaphium with serrated ends (rhino-like), shorter, terminal diagonally forked transtilla-arms, a very long, clubbed saccus and a very long and thin aedeagus, forming at the basal part a great bend (180°). The females of both species own a long bursal neck, which is extremely small in *C.hispanica*. - ATTENTION: The males are easy to determine already by a careful brushing on the uncus and at the socii!

Attention is necessary with regard to another *Cilix*-species, *Cilix asiatica*, which occurs in the southeast of Europe too and which extremely resembles *C.hispanica* in form. The most important characters of differentiation in respect to morphology of the genitalia of the males shall be given here: wide well-rounded socii, two long, upwards bent pointed transtilla-arms, a long saccus, resembling a ladle, and a long, thin aedeagus, basally bend at 90°.

It would be advisable to look out for *Cilix* at light trapping in the whole of Europe in the future and also to investigate all the existing material in collections more carefully.

Literature: *PÉREZ DE GREGORIO J. J., TORRUELLA JEREMIAS X., MIRET REQUENER E., CASAS RONDÓS M. & VALLHONRAT I FIGUERAS F. (2002): *Cilix hispanica* sp.n., nuevo Drepanidae para la fauna Íbero-balear (Lepidoptera: Drepanidae: Drepaninae). - Bol. Soc. Ent. Aragon, 30: 33-36. - **MAZEL, R., YLLA, J. & MACIA, R. (2002): *Cilix hispanica* PEREZ DE-GREGORIO & al., 2002, remarquable espèce morphocryptique nouvelle pour la faune de France (Lepidoptera, Drepanidae). - Revue de l'Association Roussillonnaise d'Entomologie, 11 (3): 81-87. - ***MAZEL R., TAVOILLOT, CH. & BRUSSEAU (2003): Quelle biogéographie pour *Cilix hispanica* PEREZ DE-GREGORIO & al., 2002? (Lepidoptera, Drepanidae). - R.A.R.E. Tome XII(3): 119-122. - ****SCIARRETTA, A. (2006): Macrolepidotteri dal bosco igrofilo Le Mortine (Campania-Molise), con segnalazione di *Cilix hispanica* DE-GREGORIO, TORRUELLA, MIRET, CASAS & FIGUERAS, 2002. - Proceedings XX Congr. Naz. ital. Ent., Perugia-Assisi 13-18 giugno 2005: 104.

- *Horisme tersata* D.SCH. (= *testacea* HBN.) and *radicaria* LAH. (= *laurinata* SCHAW.) (Geometridae):

2. European Moth Nights 2005:

- *tersata*: numerous specimens from several countries (AT, CH, DE, EE, FI, FR, GB, RO, SM); it is taken for granted that determination is correct in each case.

- *radicaria*: 12 specimens altogether from four countries (CH, ES, IT, SM) where this species is not a surprise.

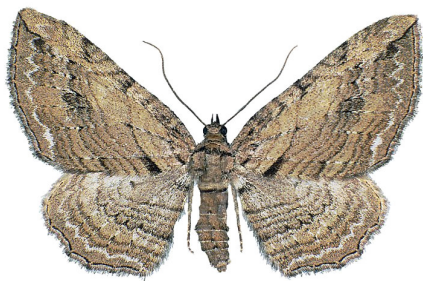


Photo 1: *Horisme radicaria* (LA HARPE, 1855)
(Photo: H. RÖTSCHKE: Die Geometriden
Mitteleuropas)

These two species might be sometimes, but certainly not always, reliably distinguished from their appearance by an expert. In many cases, and, for the inexperienced above all, examination of genitalia is absolutely to be recommended. For this reason, they are most probably regularly mixed up with each other, even today, although the separation of the two species has been clarified unequivocally for a long while (REZBANYAI 1978, 1981, respectively REZBANYAI-RESER 1984), and the differences are also well illustrated and discussed in the basic treatment of FORSTER & WOHLFAHRT 1981 (pp 298-299).

Problems of confusion might occur especially in France, and in the ranks of good experts on Lepidoptera too, in fact, because in the good illustrated publication of LERAUT 1992, the images of the moths *tersata* and *radicaria* have been mixed up (the otherwise well done, characteristic illustration no 13 on page 195 presents, well recognisable, the species *tersata* instead of the mentioned *radicaria*, and illustration 12 instead of the mentioned *tersata* the species *radicaria*).

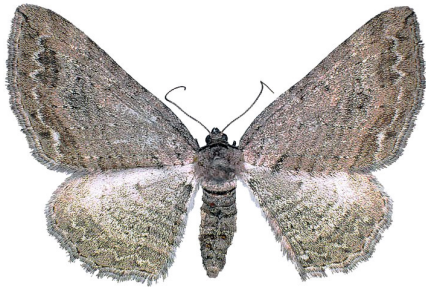


Photo 2: *Horisme tersata* (DEN. & SCHIFF. J. 1775)
(Photo: H. RÖTSCHKE: Die Geometriden
Mitteleuropas)

– *Horisme tersata* originally is an eastern (Siberian?) species, which penetrates to the west into Northern Spain and to England, so, it is to be expected perhaps, with a few exceptions (Ireland, Portugal, Southern Spain, the extreme north of Corsica), in the whole of Europe, namely in xeromontane habitats of mountains even up to 1800 m, where some *Clematis*-species (Travellers' Joy, etc.) grows.

– *H.radicaria* on the contrary, is an Atlanto-Mediterranean species, favouring less dryness but more warmth, a species living only at lower levels in the Alps (to about 1000 m), which has been recorded only from Spain, Italy (incl. Sicily and Sardinia), France (incl. Corsica), in Switzerland, in the extreme west of Austria (Vorarlberg), in SW-Germany (in the area of the Rhine valley to the Eifel and to Bonn respectively), from some areas of the basin of the Carpathian Mountains and the Balkans. The foodplants of the species are most probably likewise *Clematis*-species. Whether all records of *H.radicaria*, present in literature, are correct, is not certain at all unfortunately! – More attention should be paid to the correct differentiation of *H.tersata* and *radicaria* everywhere.

Literature: *FORSTER, W. & WOHLFAHRT, Th.A. (1981): Die Schmetterlinge Mitteleuropas, Bd.5, Spanner. Franckh'sche Verlagshandl., Stuttgart. – **LERAUT, P. (1992): Les papillons dans leur milieu. Ecoguides. Bordas. 256 pp. – ***REZBANYAI, L. (1978): Eine Lösung für die *Horisme (Phibalapteryx) tersata-testacea*-Frage: *Horisme laurinata* SCHAWERDA 1919 bona species mit der forma nova *griseata*. - Mitt. Entomol. Ges. Basel, 28: 57-71. – ****REZBANYAI, L. (1981): Die Verbreitung der *Horisme*-Arten *tersata* DENIS & SCHIFFERMÜLLER 1775 und *laurinata* SCHAWERDA 1919 in Europa (Geometridae). - Nota lepid., 4: 159-166. – *****REZBANYAI-RESER, L. (1984): *Horisme laurinata* SCHAWERDA 1919 syn. nov. zu *H. radicaria* DE LA HARPE 1885, nebst weiteren Angaben zur Verbreitung der Art (Lep., Geometridae). - Nota lepid., 7: 350-360.

– *Hylaea fasciaria* L. and *prasinaria* D.SCH. (Geometridae):

Statement about the taxonomic status of *Hylaea fasciaria* (LINNAEUS, 1758) and *prasinaria* (DENIS & SCHIFFERMÜLLER, 1775) (Lepidoptera: Geometridae).

(Author: LADISLAUS REZBANYAI-RESER, Natur-Museum, Kasernenplatz 6, CH-6003 Luzern; e-mail: ladislaus.reser@lu.ch)

2. European Moth Nights 2005: Numerous reports from different countries.



Photo 3: *Hylaea fasciaria fasciaria* ♂
(LINNAEUS, 1758)
(Photo: H. RÖTSCHKE: Die Geometriden
Mitteleuropas)

The species *Hylaea fasciaria* has, as everybody knows, two extremely different looking forms, one with fleshy red (*fasciaria* L.) and one with green primary color (*prasinaria* D.SCH.). In specialized literature they are treated either as separate species (e.g. FORSTER & WOHLFAHRT 1981) or as infra-specific forms of the species (in that case *prasinaria* simply is seen as junior synonym of *fasciaria*, like e.g. in KARSHOLT & RAZOWSKI 1996 or LERAUT 1997). In a few places they are understood as two subspecies, like e.g. in KOCH 1984. But in numerous faunistic publications, above all, where a report is expected about the green *prasinaria*, only the name „*fasciaria*“ is used, because the authors don't recognize the otherwise high importance of the exact differentiation of these two taxa. Because of that, it is often not clear which of the forms is concerned, and research of this phenomenon is for that reason quite neglected today.

We have experienced this too at the European Moth Nights 2004 and 2005, when almost all recorders who had seen or collected *prasinaria* indicated only the name *fasciaria* in their report. Everybody had to be asked separately in writing afterwards, which form of „*fasciaria*“ they had in mind.

A further problem of investigation of the distribution of both taxa is the circumstance that many lepidopterists mistake specimens of *prasinaria*, which by ecological influence (moisture most probably) and because of a „long“ life, have strongly faded, with *fasciaria*. Such *prasinaria* do exist in in several collections, discribed as „*fasciaria fasciaria*“, and the author has already located such verifiable mistakes in publications too.



Photo 4: *Hylaea fasciaria prasinaria* ♀
([DEN. & SCHIFF.]. 1775)

(Photo: H. RÖTSCHKE: Die Geometriden
Mitteleuropas)

From the experience of the author it is out of the question that *fasciaria* and *prasinaria* might be two different species. Many different, partially bizarrely coloured, hybrid forms obviously occur without problem where they meet in nature: apart from fleshy red primary colour with green bands and margin, apart from toxic green primary colour with red bands and margin or in the extreme case, rather dark looking, almost monochrome, dirty grey-green individuals (f. *grisearia* FUCHS?). Most probably, while most of these forms had received without exception some or other „form name“ (hybrids however should not bear any name, according to the rules of international nomenclature, which in many cases is difficult to accept for practical reasons!). – The author has succeeded several times in breeding numerous offspring of such dirty greyish green females from the valley of the river Rhône, Valais (Switzerland). A whole bunch of variant forms between *fasciaria* and *prasinaria* occurred from the same hatch, the distinct original form included. This points unmistakably to the fact that such females are hybrids of fertile subspecies.

But, the assumption too, that only two infra-subspecific forms might be concerned, and *prasinaria* would only be a synonym to *fasciaria*, can't be correct. This is only seemingly so in areas of hybrid populations. The situation is even more complicated, when looked at in a wide-ranging manner.

In theory: Two subspecies of the same species have their own areas of distribution as a rule, which might overlap however. Hybrid populations will emerge in such areas of sympatry. And the situation is like that with *fasciaria* and *prasinaria*. In some areas *fasciaria* is to be found exclusively in island-like patches (=disjunct distribution), in many areas only *prasinaria* is found, but hybrid populations also occur today in a wider range or mosaic-like distribution.

Reasons are to be found in the assumed history of evolution of both taxa in the first place and in the re-colonization of Europe during postglacial times. – The taxon *fasciaria* had to develop from common ancestors in areas of pine forest (most probably in the southeast of Europe, in Asia Minor or in the Middle East). It still prefers to live on *Pinus silvestris* (pine) today and its ecological demands (rather thermophilous and xerophilic, above all) are very similar to those of the foodplant. –The taxon *prasinaria* must have had to develop on the other hand in areas of spruce and fir (likely in the area of Siberia). It prefers to live on *Picea abies* (spruce) or *Abies alba* (fir), but is able to live on *Pinus* optimally without problem. *Prasinaria* prefers rather cool and more moist habitats (like its main foodplant too) and avoids extremely xerothermic areas.

The author is able to report on the situation of both taxa in Switzerland, to give a concrete example:

– *fasciaria* is living there, most likely exceptionally, in areas of relict pine forest, in the valley of the Rhône, in the Valais, where it rules either absolutely, or predominates at least against *prasinaria* very clearly (the author himself was not able to find *prasinaria* there). This taxon has conquered the area of Switzerland, surely spreading after the ice age, namely from east southeast, parallel with its foodplant. With the retreat of pine forests to the special locations of today because of climatic changes *fasciaria* withdraw also and was only left in the extremely xerothermic, continental pine forests of the Valais as a relict of postglacial times. The species has its own area of distribution in Switzerland, as to be expected from a subspecies.

– Spruce and fir have conquered the area of Switzerland in the meantime, penetrating from the northeast, and have dispersed to a wide range, encircling gradually all relict pine forests at the same time. This caused a disjunct distribution of *Pinus silvestris* too. *Prasinaria* followed spruce and fir. In doing so, the species gradually conquered the encircled areas of pine forest, with the exception of the warmest and most dry pine forests in the valley of the Rhône in the Valais. With the exception of these areas the green *prasinaria* occurs exclusively in all the other typical pine forests of Switzerland today (Ticino, the Grisons, Central Switzerland, area of Jura) and also in all spruce and fir or mixed forests of the country the green one occurs exclusively (see numerous faunistic publications of the author, above all the one about the areas of pine forest of Gersau (canton Schwyz), Lavorgo (canton Ticino) and Ins (canton Bern): REZBANYAI-



RESER 1984, 1995, 2003). *Prasinaria* has in Switzerland too its own area of distribution, as is to be expected from a subspecies.

– In the valley of the Rhône in the Valais these pine forest areas are surrounded, together with *fasciaria*, by large spruce forests, into which *Pinus silvestris* penetrates at many places too on xerothermic, steep and rocky mountain slopes. It is in these areas, where *fasciaria* and *prasinaria* meet today, that many different forms of transition are created, thus obvious hybrids of subspecies. In other areas of Switzerland such forms of transition are not known at all (the remarks about the faded *prasinaria*-individuals, to be mistaken with *fasciaria*, should especially be considered in this connection!).

– One example from the practice of the author in collecting at the place Visperterminen in the Valais, where he personally carried out numerous light catches in two regions (the females of the several hybrid breedings originate from there too): the ratio „*fasciaria* : hybrid : *prasinaria*“ at 1300 m, all light catches summarized, was 6 : 19 : 6 (in % cir. 19 : 62 : 19), and at 850 m 8 : 39 : 13 (in % cir. 13 : 65 : 22).

Sometimes a taxonomical magic word is mentioned: „ecological form“. Neither *fasciaria* nor *prasinaria* can be regarded as „ecological forms“ however. An „ecological form“ develops under the direct influence of the ecology of its habitat. If they are bred under different ecological conditions (e.g. in the laboratory), or shifted to another habitat, the offspring will look different from their mother. Morphology of *fasciaria* and *prasinaria* is fixed by heredity however. They stay red or green, no matter in which coniferous wood they are raised, or whether the caterpillars are kept warm or cold. – But they may not even be called „ecological subspecies“, although ecology must have played an important part in the origin of both forms and in the development of the present-day distribution. „Ecological subspecies“ namely, live exclusively in such habitats, in which the ecological demands, typical for these taxa, are fulfilled. This is, at least, in *prasinaria* not at all wholly the case today, because this taxon is able to conquer areas of pine forest too and to develop on *Pinus silvestris* without a problem.

The total situation, with different further variations, has to be in accordance with these principles in other places too, where *fasciaria* and *prasinaria* occur alone or along with each other. In Central Europe, north of the Alps, like e.g. in Germany, an even more pronounced mosaic-like distribution must have been created, parallel with the history of the vegetation. Interbreeding in such areas has most likely advanced to the extent that homogenous populations of *fasciaria* or of *prasinaria* are perhaps entirely absent in a wide range. – Anthropogenous influence on vegetation has also affected interbreeding of both taxa intensely in the last centuries. Eggs and caterpillars of *Hylaea* might be introduced with seedlings of conifers everywhere into all possible habitats too, unusual for these taxa, even into areas of agriculture or settlement. Therefore man also plays an important part in the spreading and genetic interbreeding of *fasciaria* and *prasinaria* today.

All of this might, most probably, not have been investigated at all, or only very little, in many places, because both taxa do not receive enough attention. The author would like to point out once more, that the two taxa *fasciaria* and *prasinaria* and their possible forms of transition as well (officially only called „*fasciaria* trans. ad *prasinaria*“), should always be registered separately during field work or in data recording and be mentioned in publications accordingly.

Literature: *FORSTER, W. & WOHLFAHRT, TH. A. (1981): Die Schmetterlinge Mitteleuropas, Bd.4, Geometridae. - Franckh'sche Verlagshandl., Stuttgart. – **KARSHOLT, O. & RAZOWSKI, J. (1996): The Lepidoptera of Europe. A Distributional Checklist. - Apollo Books, DK-Stenstrup. – ***KOCH, M. (1984): Schmetterlinge. - Verl. Neumann-Neudamm, Leipzig-Radebeul. – ****LERAUT, P. (1997): Liste systématique et synonymique des Lépidoptères de France, Belgique et Corse (deuxième édition). - Alexanor, Suppl., pp.526. – *****REZBANYAI-RESER, L. (1984): Zur Insektenfauna von Gersau-Oberholz, Kanton Schwyz. III. Lepidoptera 1: "Macrolepidoptera" ("Grossschmetterlinge"). - Entomol. Ber. Luzern, 12: 1-127. – *****REZBANYAI-RESER, L. (1995): Zur Grossschmetterlingsfauna des Föhrenwaldheidegebietes oberhalb Lavorgo, 880 m, Valle Leventina, Kanton Tessin (Lepidoptera: „Macrolepidoptera“). - Entomol. Ber. Luzern, 34: 21-124. – *****REZBANYAI-RESER, L. (2003): Zur Nachtgrossfalterfauna vom Berner Seeland (Ins, Landwirtschaftliche Schule, 433 m) (Lepidoptera: "Macroheterocera"). - Entomol. Ber. Luzern, 49: 45-148.

– ***Diachrysia chrysitis* (LINNAEUS, 1758) & *tutti* (KOSTROWICKI, 1961) (Noctuidae):**

A renewed statement against the independence of *Diachrysia chrysitis* (LINNAEUS, 1758) and of *tutti* (KOSTROWICKI, 1961) =? *stenochrysis* (WARREN, 1913) as species, with regard to DNA-analyses of both taxa, recently carried out by other researchers (Lepidoptera: Noctuidae).

(Author: LADISLAUS REZBANYAI-RESER, Natur-Museum, Kasernenplatz 6, CH-6003 Luzern; e-mail: ladislaus.reser@lu.ch)

2. European Moth Nights 2005: Numerous reports from different countries.

The author has reported in some detail on these two taxa in the evaluation of the 1.EMN 2004 and also in several other of his publications on the doubt as to whether really two „bona species“ are concerned, genetically completely separated from each other. In the meantime, the assumption about the possible identity of *Diachrysia stenochrysis* (WARREN, 1913) from Southeast Asia, with „*tutti*“ added to these problems. Obviously, with the one-sided morphological methods, these questions cannot be solved to one's satisfaction. But DNA-analyses also, carried out recently, which

seemingly speak for the „reliable“ separation of both taxa as species (HILLE et al., 2005) still are not able to convince the author!



Photo 5.: *Diachrysia chrysitis* (LINNAEUS, 1758)
(Photo: VILMOS POLONYI)



Photo 6: *Diachrysia chrysitis*, with *tutti-stenochrysis*
appearance
(Photo: VILMOS POLONYI)

DNA-analysis should be excellently suited to finding out about the degree of relationship between taxonomic groups, or even between single populations or individuals. It will be unsuitable, however, for a correct separation of species, because of the always subjective results of the analysis. It is impossible in fact to draw concrete borderlines from which the degree of genetic difference separating the two taxa has to be regarded as enough to establish two different species. This can only be shown in the practice of reproduction. In HILLE et al. 2005 also, the authors have decided, subjectively only, that the amount of genetic differences discovered between *chrysitis* and „*tutti*“ „is normally taken as valid for a difference of species“.

In nature, however, (but in larger collections too) so many possible forms of transition between these two taxa do exist at the morphological level (morphology of genitalia included!) that one can indeed hardly speak of two different species, at least in Europe. It is not possible in practice also, to determine single specimens of insects by DNA-analysis in faunistic work! It is clearly communicated in HILLE et al. 2005 too, that the two groups of „*chrysitis*“ were not to be characterized, respectively separable from their habitus, on the basis of catches with pheromone traps, respectively by DNA-analysis. The taxa *chrysitis* and „*tutti*“ or „*stenochrysis*“ have been put together under the name „*chrysitis*“ in the results of the 2.EMN 2005 for this reason. See for further remarks and arguments in the evaluation of the 2.EMN also above, in the chapter „systematics, taxonomy and nomenclature“.

In the case of *chrysitis/tutti* (and in *stenochrysis* too) it is the author's opinion that only breeding experiments are left, once again, to help clarify these problems, such as those carried out, partly with success, e.g. in *Noctua janthina* D.SCH. and *janthe* BKH. It should be investigated on the one hand, how homogenous the offspring from the same layer of eggs become both in morphologic and in genetic respects (DNA-analysis!). Experiments of hybridisation should possibly be carried out on the other hand as well. – Breeding of these taxa is not a great problem (breeding in summer above all), but it is not easy to catch females alive and to get a sufficient number of eggs of these (REZBANYAI 1983). Catching females is best done at dawn or immediately before it gets dark, since they mostly visit compositae (e.g. thistles - *Carduus*) only for a short time to feed. Females, loaded with eggs, come rarely to the light. It is a problem during the period of egg laying in captivity that females probably need food from time to time (visits to flowers for that reason) before they lay small amounts of eggs. They mostly lay a few eggs only when not able to feed and will soon die.

The author has reported in detail once about his partly confusing results of *chrysitis-tutti*-catches with pheromone traps in Switzerland (REZBANYAI-RESER 1985). The conclusions made at that time are still in his opinion fully valid (two former geographical subspecies, which fly wide-ranging alongside each other today because of extensions in area in postglacial times, and which clearly interbreed genetically but only slowly because of differences in pheromones). A publication about more of these catches with pheromone traps in Switzerland is in preparation.

None of this means that no efforts should be made to study these taxa further, nor to consider them in local faunistic investigations. One has to consider only that obvious forms of transition can't be assigned from their habitus to any of these two taxa without compulsion.

The problem, whether *stenochrysis* is really identical with *tutti*, which might be quite possible (this is not considered in HILLE et al. 2005, because „true“ *stenochrysis* had not been examined), cannot be reviewed by the author at present. This however is insignificant from the point of view of the EMN, since the type locality of *stenochrysis* is not in Europe, but in Southeast Asia.

Literature: *HILLE, A., MILLER, M. A. & ERLACHER, S. (2005): DNA sequence variation at the mitochondrial cytochrome oxidase I subunit among pheromotypes of the sibling taxa *Diachrysia chrysitis* and *D. tutti* (Lepidoptera: Noctuidae). - Zoologica Scripta, 34: 49-56. – **REZBANYAI, L. (1983): *Diachrysia chrysitis* L. und *D. nadeja* OBTH. - Beschreibung einer Parallel-Sommerzucht und der Präimaginalstadien (Lep., Noctuidae). - Mitt. Schweiz. Entomol. Ges., 56: 23-32. – ***REZBANYAI-RESER, L. (1985): *Diachrysia chrysitis* (LINNAEUS, 1758) und *tutti* (KOSTROWICKI,

1961) in der Schweiz. Ergebnisse von Pheromonfallenfängen 1983-84 sowie Untersuchungen zur Morphologie, Phänologie, Verbreitung und Oekologie der beiden Taxa (Lepid., Noctuidae: Plusiinae). - Mitt. Schweiz. Entomol. Ges., 58: 345-372.

– *Acontia (Tarachidia) candefacta* HBN. (Noctuidae):

In respect to knowledge and dispersal of *Acontia (Tarachidia) candefacta* (HÜBNER, [1831]) in the Ukraine (Lepidoptera: Noctuidae).

(Author: LUTZ LEHMANN, Fr.-List-Strasse 41, D-15890 Eisenhüttenstadt; e-mail: luleehst@t-online.de)

2. European Moth Nights 2005:

Ukraine, Black Sea, Zaporos, Oblast, 3 km E Berdjansk, 50 m, 3.7.2005, several specimens, leg. L. LEHMANN.



Photo 7: *Acontia candefacta* (HÜBNER, [1831])
(Photo: [http://nitro.biosci.arizona.edu/...](http://nitro.biosci.arizona.edu/))

The species was described and portrayed as *Tarache candefacta* for the first time by HÜBNER [1831] from Pennsylvania in the USA. Synonyms of the taxon are: *haworthana* WESTWOOD, 1851, *debilis* WALKER, [1858], *neomexicana* SMITH, 1900 (brighter form from the southwest of the USA) and *candefactella* STRAND, 1916. The species might be known to but a few European lepidopterists, though occurring also at the eastern margin of Europe for almost four decades, and it shall be introduced briefly here. It is widely distributed in North America (mostly listed as *Tarachidia candefacta*) from the south of Canada to Mexico and from the East coast to California. It is most common in the south of the area of distribution. The caterpillar (short description by FORBES, 1954) lives on leaves of the genus *Ambrosia* and pupates in the ground.

The species hibernates as a pupa and flies from April or May to September, most likely in two generations. Preferred habitats are wastelands, areas of ruderal vegetation, xerobrometa, steppe slopes and the like, according to the habitat of the foodplant. Plants of *Ambrosia artemisiifolia* (common ragweed) have long been feared as cause of allergies in North America. As result of contact of the skin with the inflorescences, but with pollen above all (supposed to be worse than pollen of grasses) heavy allergic reactions emerge, for whose treatment large amounts of money have to be spent (in Quebec e.g. 50 million \$ annually). The genus *Ambrosia* was already introduced into Europe in the first part of the 20th century, of which *A. artemisiifolia* is the most widely distributed species and which occurs in numerous countries.

The Noctuid species *A.candefacta* was introduced from the south of Canada into the regions Krasnodar and Stavropol of the former Soviet Union from 1967 to 1968 for the biological control of *Ambrosia*. The chances of success seem to be rather small in this case, although one female is able to lay 300 to 500 eggs. After little was learned from the species for some time, KLJUTSCHKO, BUDASHKIN & GERASIMOV (2004) were able to prove its occurrence in the Ukraine. The most continuous observations come from the biological station Karadag on the Crimean Peninsula since 1994. Further records are reported from the Crimean Peninsula and the southeast of the Ukraine. Together with the author's own records from the end of June/beginning of July 2005 (westernmost locality Cjurupinsk near Cherson) a picture is drawn of a dispersal, directed to the west, along the coast of the Black Sea and to the steppe areas in the background (up to cir. 150 km inland). The records of KLJUTSCHKO, BUDASHKIN & GERASIMOV (2004) are from the same period of time between end of May and end of September.

A further penetration of the species to the west, even to Central Europe, is not impossible. Thus, special attention should be paid to *Acontia (Tarachidia) candefacta* in the future. It has the typical pattern of markings of many species of the *Acontia*-group with the wing shape and the size of *Acontia (Emmelia) trabealis* (SCOPOLI, 1763). Since the species is distinctly smaller than *Acontia lucida* (HUFNAGEL, 1766), it might hardly be mistaken for this nor for other species.

Remarks in respect to nomenclature: The group of species around *Acontia* OCHSENHEIMER, 1816 is being revised for the African fauna by LEGRAIN, HACKER & FIBIGER and with it some genera, independent so far, will be reduced in their status (cp. FIBIGER & HACKER, 2005, who are followed here).

Literature: *COVELL, C. V. Jr. (1984): A field guide to the moths of eastern North America. - The Peterson Field Guide Series 30: 1-496. – **FIBIGER, M. & HACKER, H. (2005): Systematic List of the Noctuoidea of Europe (Notodontidae, Nolidae, Arctiidae, Lymantriidae, Erebidae, Micronoctuidae and Noctuidae). - Esperiana 11, 93-205. – ***FORBES, W.T.M. (1954): Lepidoptera of New York and neighboring states. Part 3 Noctuidae. - Cornell Univ. Agric. Experiment Station, Mem., 329: 1-433, figs. 1-290. – ****KLJUTSCHKO, Z.F., BUDASHKIN, J.I. & R.P. GERASIMOV (2004): New and Little-Known Noctuidae (Lepidoptera, Noctuidae) from Ukraine. - Vestnik Zoologii 38(1): 94 (into Russian).

– *Noctua janthina* (DENIS & SCHIFFERMÜLLER, 1775) & *janthe* (BORKHAUSEN, 1792) (Noctuidae):

2. European Moth Nights 2005: Numerous reports from different countries.

Photo 8: *Noctua janthina* ([DEN. & SCHIFF.], 1775)
(Photo: CHRISTIAN SIEGEL)Photo 9: *Noctua janthina*, *janthe*-habitussal
(Photo: CHRISTIAN SIEGEL)

Literature: *PLONTKE, R., FRIEDRICH, E., GRAJETZKI, K., HÜNEFELD, F., MÜLLER, R. & HEINICKE, W. (2005): Zweifel an der Artberechtigung von *Noctua janthe* (BORKHAUSEN, 1792) und *Noctua tertia* (v. MENTZER, MOBERG & FIBIGER, 1991) im Komplex „*janthina*“ (Lep., Noctuidae). - Entomologische Nachrichten und Berichte, Dresden, 49 (1): 33-38. - **REZBANYAI-RESER, L. (2005): Die Nachtfalterfauna vom Rotseeeriedgebiet in Ebikon, 420 m, Kanton Luzern (Lepidoptera: „Macroheterocera“). - Entomol. Ber. Luzern, 52 (2004): 1-74.

– *Coscinia cribraria* L. and *punctigera* FRR. (Arctiidae):

Statement of the taxonomic legitimacy of *Coscinia cribraria punctigera* FREYER, 1843 (non = *pannonica* DANIEL, 1955) on subspecific level (Lepidoptera: Arctiidae).

(Author: LADISLAUS REZBANYAI-RESER, Natur-Museum, Kasernenplatz 6, CH-6003 Luzern; e-mail: ladislaus.reser@lu.ch)

2. European Moth Nights 2005:

- *cribraria* L.: Numerous specimens from Germany, Finland, the Netherlands and Poland.
- *punctigera* FRR.: Numerous specimens from Southern Switzerland (Ticino).
- *ripperti* BSD.: A single record from the Central Pyrenees (Ariège).

Photo 10: *Coscinia cribraria cribraria* ♂
(LINNAEUS, 1758)
(Photo: H. RÖTSCHKE: Die Spinner und Schwärmer Europas und Nordwestafrikas)

These two taxa were reported on in some detail in the evaluation of the 1.EMN 2004 where the doubt was pointed out about whether really two „bona species“ were concerned, genetically completely separated from each other. No new evidence or argument has come to our knowledge in the meantime, which would speak for their separation as species. On the contrary! In a nice publication, illustrated in colour, the opinion of REZBANYAI-RESER, already mentioned in several places (e.g. REZBANYAI-RESER 2004, p. 53), is confirmed, that *janthina* and *janthe* (and obviously the third near-relative: „*N.tertia*“ in Asia Minor) too, are conspecific taxa. German lepidopterists have come to identical results about this: Out of the same layers of eggs, from the same mother female, may hatch, apart from typical *janthina*, obvious *janthe* or *tertia* too (see PLONTKE et al. 2005).

For this reason *janthina* and *janthe* have been integrated under the name „*janthina*“ at the 2.EMN 2005 (in respect to remarks and arguments see also above in the chapter „systematics, taxonomy and nomenclature“). – But this doesn't mean at all, not to take efforts in further investigation of these taxa in the future and not to consider them in local faunistic work. One has only to consider this, that obvious forms of transition can't be assigned to any of the two (or three) taxa from their habitus without compulsion.

In DE FREINA & WITT 1987, the position is clearly taken, that *C.cribraria* has no subspecies in Europe because the single populations were everywhere very heterogeneous morphologically and therefore not sufficiently defineable, (see also DE FREINA & WITT 1984). The different geographical forms described (=subspecies), are mixed up hereby with the individual forms described and unanimously called „infra-subspecific forms“, which might be caused in part ecologically (see also DANIEL 1955). The habitus of representatives of several *cribraria*-„forms“ is certainly not created by the recent ecology of their habitats, but is in principle fixed by heredity. Only their genetic emergence must have been caused in part ecologically, as is the case in all subspecies as a rule. It doesn't make much sense not to call geographical forms subspecies, but infra-subspecific forms only which hinders investigation of the species at the infra-specific level.

This reduction of the taxon *punctigera* FRR. (locality of type most probably Bolzano in South Tirol) cannot be valid at all in respect to Switzerland too (see e.g. REZBANYAI-RESER 1995 and LEPIDOPTEROLOGEN ARBEITSGRUPPE 2000). In this country (above all in Valais, in the valleys of the Southern Alps and in Engadine) apart from a certain degree of variation, occur uniformly very bright, hardly spotted



Photo 11: *Coscinia cribraria pannonica* ♀
DANIEL, 1955
(Photo: KÁDÁR MIHÁLY)



Photo 12: *Coscinia cribraria punctigera* ♂♂ ♀
FREYER, 1834
Photo: LADISLAUS REZBANYAI-RESER)

specimens (either with 1-2 or with only a few rather small little spots), which should be called „*ssp.punctigera* FREYER, 1834“ (this taxon is also not at all identical with the South European *candida* CYRILL, 1787, with likewise barely spottet forewings but with still more bright, clearly yellowish hindwings). Somewhat more distinctly spottet specimens (which however never reach the appearance of the typical nominate form by far) occur in Switzerland sporadically in *punctigera*-populations only in Valais and in the west of the country, which seems to point to a certain gene flow from the north (along the Jura). Since *cribraria punctigera* forms in Switzerland almost homogenous populations (especially in the valleys of the Southern Alps, but in these certainly outside of Switzerland too), the demands of the status of a subspecies are actually unreservedly fulfilled. If one would apply other methods of investigation also (enzyme-electrophoreses, investigation with pheromones), one would certainly be able to find likewise significant differences compared to the nominate form. Single exceptions make no difference to this, when in the area of a certain subspecies some individuals resemble eventually another subspecies. In *C.cribraria* this certainly concerns other areas of Europe too. That's why we can't exactly state e.g. in the results of the 2. European Moth Nights 2005, which subspecies *cribraria*, recorded in the Central Pyrenees, represents. It is hard to believe that the species might be genetically identical with the nominate form of Central Europe. Most probably, the *ssp.rippertii* BSD. is concerned (cp. DANIEL 1955).

This taxonomic problem should therefore still not be put „ad acta“. The single populations should be carefully studied in the field in future research in this area and not only by chance or with the intention to accumulate material for collections selectively. If a collector takes only 4 or 5 extreme forms out of a rather homogenous population of hundreds or thousands of specimens, the wrong impression is created upon the material, collected for proof, that a completely heterogenous population is concerned, and the general morphological characters of the population will be undiscovered ! This problem can hardly be avoided unfortunately in taxonomic work with material of collections, and this especially at the infraspecific level.

The author has likewise doubts, whether *punctigera* FRR. is really identical with *pannonica* DANIEL 1955, as stated in DE FREINA & WITT 1987. This is not to be expected because of geographical and historical reasons of the fauna too. Even if the two species resemble each other very much in form, the hindwing of *pannonica* is clearly much darker in general than in most representatives of the *ssp.punctigera*. All of this is mentioned by the way, although *cribraria pannonica* has not been recorded otherwise during the 2.EMN.

Literature: *DANIEL, F. (1955): Die Wirkung ökologischer Einflüsse auf den Habitus von Lepidopteren, untersucht an den Formen von *Coscinia cribraria* L. - Ztsch. Wiener Entomol. Ges., 40: 183-201. - **FREINA, J. DE & WITT, TH. (1984): Taxonomische Veränderungen bei den Bombyces und Sphinges Europas und Nordwestafrikas. Über die Berechtigung von Unterarten bei *Spiris striata* (LINNAEUS, 1758) und *Coscinia cribraria* (LINNAEUS, 1758). Ergebnisse einer Teilrevision. - Nota lepid., 7 (3): 223-236. - ***FREINA, J. DE & WITT, TH. (1987): Die Bombyces und Sphinges der Westpaläarktis (Ins., Lepid.), Bd.1. - Ed. Forsch. & Wiss. Verl., München, pp.708. - ****LEPIDOPTEROLOGEN-ARBEITSGRUPPE (2000): Schmetterlinge und ihre Lebensräume. Arten, Gefährdung, Schutz. Schweiz und angrenzende Gebiete. Bd.3. - Hrsg.: Pro Natura / Schw. Bund Naturschutz; Verl. Fotorotar, Egg ZH, pp. 914 (französische Ausgabe: „Les papillons et leurs biotopes, Vol. 3“, 2005). - *****REZBANYAI-RESER, L. (1995): Zur Grossschmetterlingsfauna des Föhrenwaldheidegebietes oberhalb Lavorgo, 880 m, Valle Leventina, Kanton Tessin (Lepidoptera: „Macrolepidoptera“). - Entomol. Ber. Luzern, 34: 21-124.

„EMN“ AND THE PROTECTION OF NOCTURNAL MOTHS

This event should have attracted wide-scale attention to nocturnal moths. We wanted to make the general public aware of the very existence of these creatures and their mass scale presence in natural ecosystems. Several participants were accompanied on their collecting by friends and acquaintances interested in nocturnal moths and their world. This possibility should be exploited even more in the future. If that is realized a concrete report on that achievement should be sent to EMN HQ.



In respect to the most important remarks and suggestions about measures of protection of nocturnal moths, belonging to these topics, we refer to the texts in the evaluation of the 1.EMN 2004.

Smaller to larger meetings of lepidopterists and other people interested have been organized at the occasion of the 2.EMN, as far as we know, in the following countries above all: Finland, Germany, Great Britain, the Netherlands, San Marino, Switzerland, Spain (Catalonia), Romania and Hungary. Reports in newspapers have been published about the EMN in some places as well and it has been reported by radio or by television. All of this has certainly contributed something, once again, to increase understanding and affection of the public towards nocturnal moths and at the same time also to nature as a whole.

PLANS CONCERNING THE FUTURE OF EMN

It is intended to carry out EMN at different periods of time once a year in the future. The dates for the next two events (**3. and 4.EMN**) are **28.-30.4.2006** and **12.-14.10.2007 (+/-1 day allowed in each case)** have already been announced and are confirmed and endorsed with this. –The following thoughts have been considered above all: 1) a suitable good phase of the moon for light trapping , 2) at a weekend (Friday-Saturday-Sunday), 3) periods of time with distinctly different communities of nocturnal moths (we wanted to allow a certain change on one hand and to increase the intended total list of the programme with those species, flying in spring or autumn, on the other).

Concerning an intended **5.EMN**, most probably in summer once again (**June or July 2008**), we would not like to commit ourselves. The reason for that mainly is, that we want to better fix this date in international agreement and need time to do so.

EMN-AMBASSADORS

We are still looking for partners to be responsible for EMN („EMN-Ambassadors“) for some countries, or parts of a country, where this has not been achieved so far, to activate their local colleagues and to organize the collection and checking of locality data as a first instance and to transfer them to EMN-Headquarters. Several colleagues have already accepted to cooperate as EMN-Ambassadors and some of them have already performed as such at the occasion of the 2.EMN 2005 (see chapter „acknowledgment“). At the time of the drawing up of this statement (March 2006) no EMN-ambassadors were available to us, or nobody had firmly promised to cooperate, from the following countries (cp. from southwest to east): Spain + Andorra + Gibraltar (with the exception of Catalonia), Ireland, Great Britain, Italy, Croatia, Bosnia and Herzegovina, Montenegro, Albania, Greece, Cyprus, Czech Republic, Latvia, Lithuania, Belorussia and Russia.

EMN-Ambassadors, already in office (beginning of April 2006) and their e-mail-addresses are given in a special table:

http://lepidoptera.fw.hu/program/emn3/3emn2006_ambassador_table.xls

http://de.geocities.com/reser_entomologie/emn_ambassadore_table.xls

Their names are listed here too:

BARBUT, JÉROME (France), BESHKOV, STOYAN (Bulgaria), DANTART, JORDI (Spain: Catalonia), DE PRINS, WILLY (Belgium), ELLIOT, RON (Great Britain: Wales), GOMBOC, STANISLAV (Slovenia), GROENENDIJK, DICK (the Netherlands), HIRNEISEN, NORBERT (Germany), JONKO, KRISZTOF (Poland), KÁDÁR, MIHÁLY (Hungary), KOSTJUK, IGOR (Ukraine), KURZ, MICHAEL (Austria), MARABUTO, EDUARDO (Portugal), RESER (REZBANYAI), LADISLAUS (Switzerland, Liechtenstein and Republic of San Marino), SAMMUT, PAUL (Malta), SKULE, BJARNE (Denmark), TOKOLA, PEKKA (Finland, as well as Sweden and Norway, provisionally), VAJGAND, DRAGAN (Yugoslavia), VIIDALEPP, JAAN (Estonia) and VIZAUER, T. CSABA (Romania).

All kind of questions or problems, concerning EMN, may also be directed to the Ambassadors, at any time, from the countries listed, besides to EMN-Headquarters.

NOCTURNAL MOTH COLLECTORS, WHERE ARE YOU?

Although distinctly more than twice as many participants could be counted at the 2.EMN, compared to the 1.EMN, we have to repeat this provocative question once again. On the one hand, as quite many of the participants could not be



taken as real lepidopterists, the high number is a bit misleading. It is quite certain on the other hand that quite many active European experts on moths have perhaps never learned of the EMN at all, or stayed away for other reasons.

We herewith refer to the unchanged remarks, which we stated in the same chapter of the evaluation of the 1.EMN, and do hope that the number of „real“ lepidopterists among the EMN-participants will somewhat rise in the future. This is addressed especially to lepidopterists of such countries, of which not a single participant has been registered so far, or only in 2005.

The higher the number of participants and of recorded data, the more work is to be expected at EMN-Headquarters and the more laborious evaluations will have to be carried out. But this event for the whole of Europe, carried out only once a year, will only be really interesting, exciting and useful with many participants, localities and recorded data.

APPEAL

We invite all European nocturnal moth collectors and specialists who read these lines to:

- 1) take an active part in the planned events,
- 2) fill in the data, as completely as possible, in the given Excel tables,
- 3) inform the colleagues they know of the event in time, and to
- 4) try and convince other colleagues of the importance of participation in this event.

MOST IMPORTANT ADRESSES

Here we list the most important addresses of both centres of „European Moth Nights“, where different kinds of information may be found or ordered:

„European Moth Nights / Europäische Nachtfalternächte“

<http://www.european-moth-nights.ch.vu>
<http://euromothnights.uw.hu>

„Szalkay József Magyar Lepkészetű Egyesület“ = „Szalkay József“ Lepidopterological Society of Hungary

<http://lepidoptera.fw.hu>

Ladislav RESER (REZBANYAI)

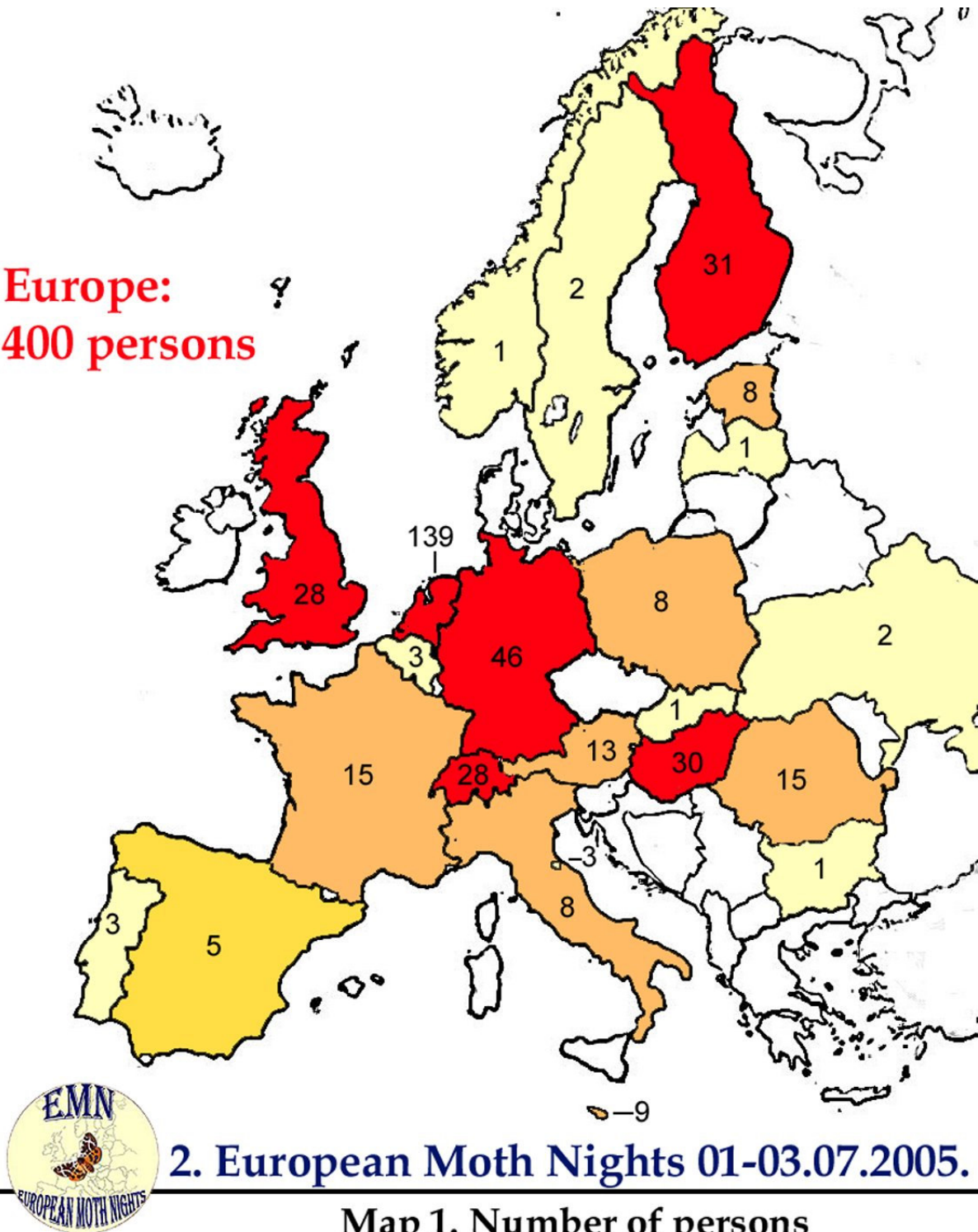
Natur-Museum Luzern, Kasernenplatz 6, CH-6003 Luzern (Switzerland)
ladislav.reser@lu.ch
http://www.geocities.com/reser_entomologie

Mihály KÁDÁR

Zoványi J. u. 19/B/9, H-4033 Debrecen (Hungary)
inachis@t-online.hu

Map 1: The number of participants of the 2nd European Moth Nights 2005 by countries.

**Europe:
400 persons**

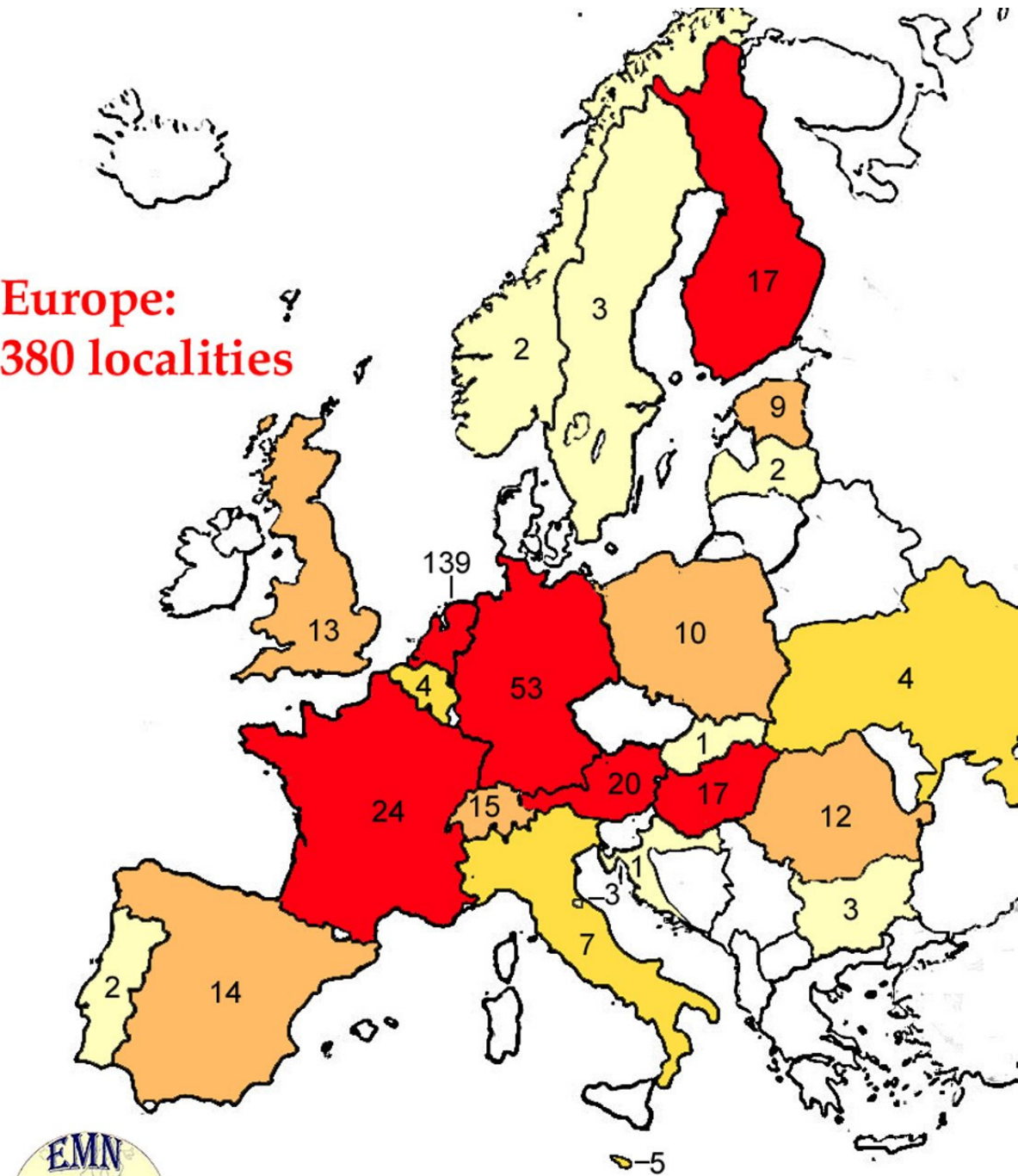


2. European Moth Nights 01-03.07.2005.

Map 1. Number of persons

Map 2: The number of localities by countries reported in course of the 2nd European Moth Nights 2005.

**Europe:
380 localities**

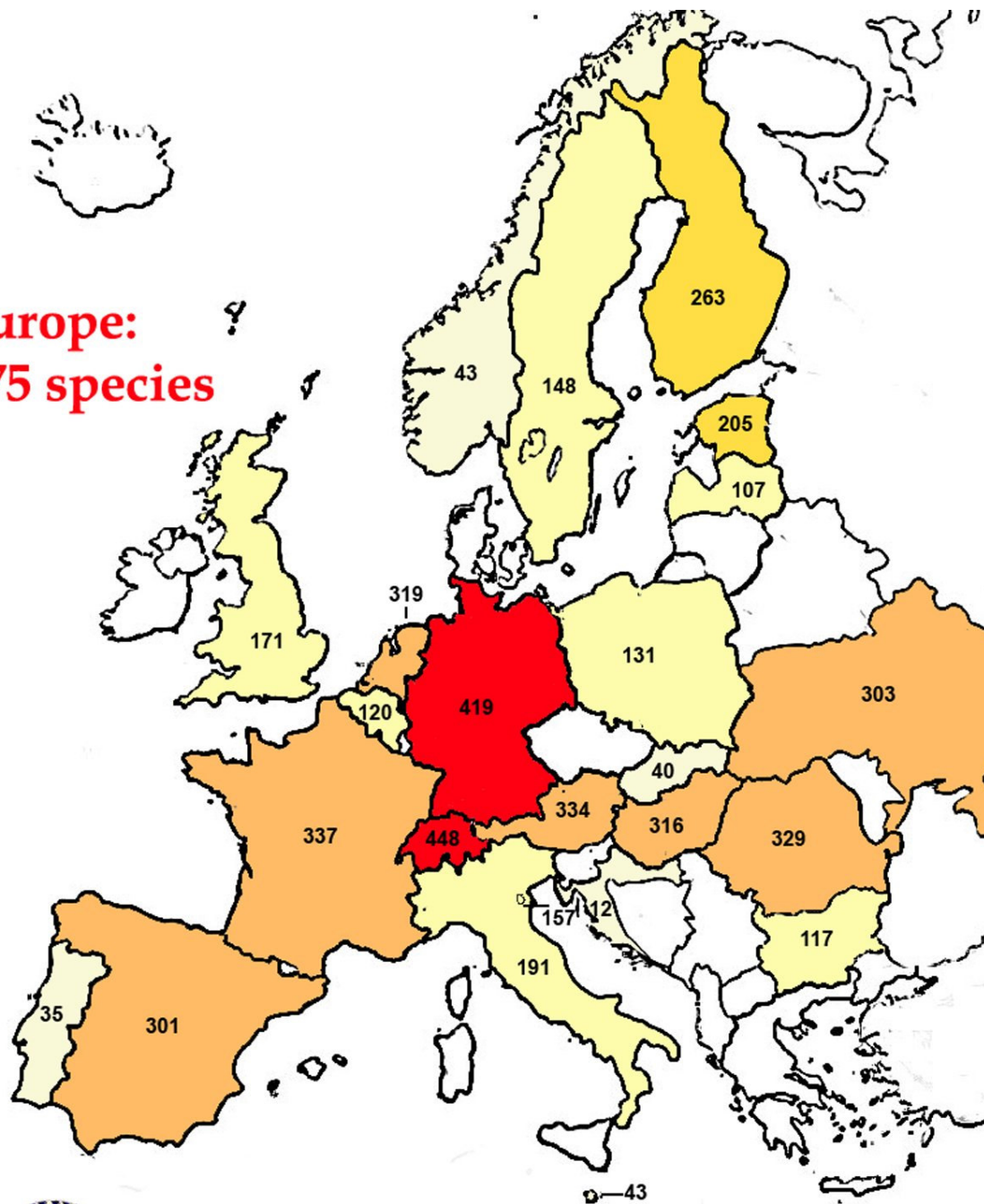


2. European Moth Nights 01-03.07.2005.

Map 2. Number of localities

Map 3: The number of Macrolepidoptera species reported from each country in the course of 2nd European Moth Nights 2005.

**Europe:
975 species**



2. European Moth Nights 01-03.07.2005.

Map 3. Number of species