Bol. S.E.A., nº **24** 1998 (1999): 189-190.

McM

Microlepidoptera (Lepidoptera) from Los Monegros

Prof. Dr. Willi Sauter

Soorhaldenstrasse 5,
CH-8308 Illnau

The microlepidoptera are by no means a valuable systematic category in the modern system of Lepidoptera, but the traditional distinction between macro- and microlepidoptera is still at the present day often used for practical reasons. The families belonging to the microlepidoptera in the traditional sense cover roughly the basal half of the modern system, including the more primitive families, but mixed with a few families that are inclusive of the so called macrolepidoptera according to their considerable wingspan, as e.g. the very primitive Hepialidae. In the fauna of Spain the micros are (following the system of Vives 1994) present with 51 families. The system of Karsholt & Razowski (1996) we follow here shows some variations in delimitating the families, but by chance the number of families found in Spain is also 51.

The compilation of the rich material collected by J. Blasco-Zumeta at Retuerta de Pina is not yet finished. This material is the result of numerous catches with a light-trap, supplemented by captures during daytime with different methods. On the other hand there is only very few material present that has been reared. For this reason families and genera consisting of very small species or live in very hidden places are only rarely or not at all represented in this field. Thus we miss at the moment leaf-miners of the families Nepticulidae and Gracillariidae, which will be found without doubt in this area by a specific search. A further reason is that the very small specimens often suffer in the light-trap so that they cannot be used or are overlooked. Until today we have identified some 240 species out of 25 families, but there still remains more material to be investigated. Nevertheless it is clear, that neither the number of families found nor the number of species is exhaustive. On the other side the species found indicate that this region has a very interesting fauna worth to be studied more intensive - and worth to be protected.

In the following part some selected species are presented. Several of them have a characteristic distribution that includes also North Africa or are even endemic in Spain. This seems to be an outstanding feature of the site of Retuerta de Pina and makes it scientifically so precious.

- **Tineidae:** Sixteen species have been found so far, among them *Myrmecozela ataxella* (Chrét.), the larvae of which are detritophageous. Its distribution includes North Africa as it is the case for *Cephimallota tunesiella* (Zag.) and *Infurcitinea frustigerella* (Wlsgh.): Both are originally described from North Africa, the second species was only recently discovered also in Spain.

- **Eriocottidae:** *Eriocottis paradoxella* Stgr. is a remarkable Iberian species, its distribution reaches until southern France.

- **Scythrididae:** Until now we have found eight species. One of them that belongs to the *cicadella*- group of species needs further investigations, as it is not identical with any species known from Europe or North Africa.

- **Oecophoridae:** *Pleurota gallicella* Huemer & Luq., described 1995 from Southern France and known from Spain only from Oña has been found also at Los Monegros.

- **Coleophoridae:** The mostly monophageous larvae of this large and interesting family are constructing characteristic larval cases from parts of its foodplant and are mining in the leaves or in seeds without leaving the case. At the moment, ca. 10 species could be identified. This number could certainly be multiplied by searching the larvae. The most common species of this group in the light-trap was *Coleophora vermiculatella* Glaser. This species is at present only known from Spain, the larvae lives on *Salsola vermiculata*.

- **Pterolonchidae**: From this peculiar and species-poor family two species are present: *Pterolonche albescens* Z. and *Pterolonche pulverulentella* Z.

- **Autostichidae:** *Heringita heringi* Agenjo, 1953 and *Hesperesta geminella* (Chrét.) are further noteworthy endemic species.

- **Gelechiidae:** This is a large family. Remarkably high is in the collected material the number of *Bryotropha*-species. This genus is badly in need of revision, there are several species especially in southern Europe that are not determinable at the moment. This is also the case for Los Monegros. Easyly to be recognized is *Bryotropha arabica* Amsel. A surprise was the existence of *Epiparasia incertella* H. S., a species not known from Europe before. At the same time this species was also discovered at Granada: Baza and at Huesca: Peñalba, not far from Retuerta de Pina (Huemer, Karsolt & Sauter 1996). Very typical for the site are also some species with larvae living on different *Juniperus* species, as *Gelechia senticetella* (Stgr.), *Gelechia nervosella* (Zny.), *Mesophleps oxycedrella* (Mill.).

- **Tortricidae:** This large family compresses within the about 30 species so far representad also some *Juniperus*-feeders typical for this biotope as *Cydia interscindana* (Möschl.), *Pammene juniperana* (Mill.) and *Pammene oxycedrana* (Mill.). Other noticeable species are *Oxypteron schawerdai* (Rbl.), *Ditula joannisiana* (Rag.), *Thiodia trochilana* (Frö1.) and *Eucosma gonzalezalvarezi* Agj.

- **Pterophoridae:** A dominant genus found at Los Monegros is *Agdistis* with six species. As far as known the larvae of this genus mostly live on halophytic plants. Two of them are endemic in Spain: *Agdistis betica* Arenberger and *Agdistis gittia* Arenberger. A common species is also *Merrifieldia spilodactyla* (Curt.).

- **Pyralidae:** With 92 species found up to present the largest family. Examples: *Hercynodes miegi* Rag., *Synaphe chellalalis predotalis* (Zny.), *Aglossa (Agriope) brabanti* (Rag.), *Merulempista numidella* (Rag.), *Dioryctria pineae* (Stgr.), *Epischnia prodromella* (Hbn.), *Myelois fuscicostella* Mn., *Seeboldia korgosella occidentella* Zny., *Phycitodes saxicola* (Vaugh.), *Euchromius gozmanyi* Blesz., *Aporodes floralis* (Hbn.), *Evergestis desertalis* (Hbn.), *Hellula undalis* (F.), *Achyra (Epicorsia) ustrinalis* (Christ.), *Pyrausta acontialis* (Stgr), *Metasia suppandalis* (Hbn.). *Plodia interpunctella* (Hbn.), a well known pest on stored products in most parts of the world, can here exist under outdoor conditions: It has been reared from larvae ex galbules of *Juniperus thurifera* and *Juniperus phoenicea!*

The publication of a complete list of microlepidoptera of Retuerta de Pina is planned for the time when the determination of the whole material is accomplished. But the prevailing data already show clearly that the fauna of microlepidoptera of this place with its extreme climatic conditions and its special flora is outstanding on the Spanish as on the European level and deserves due protection in a way that keeps the biocoenose intact.

Literature

HUEMER, P., KARSHOLT, O. & SAUTER, W. 1996. The genus *Epiparasia* Rebel, 1914 in Spain (Lepidoptera, Gelechiidae). *SHILAP Revta. lepid.* **24**(96): 341-345.

KARSHOLT, O. & RAZOWSKI, J. (editors) 1996. *The Lepidoptera of Europe*. 380 p. Apollo Books, Stenstrup.

VIVES MORENO, A. 1994. *Catalogo sistemático y sinonímico de los Lepidópteros de la Península Ibérica y Baleares (Insecta: Lepidoptera) (segunda parte)*, Ministerio de Agricultura, Pesca y Alimentacion. 775 p. Madrid.