

## Tipulidae of Roumania (Dipt., Nematocera)

by

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Up till now no synopsis of the Tipulidae of Roumania has as yet been published. THALHAMMER (1900) in his study on the Diptera of Hungary, also dealt with the crane-fly-species of Banat and of Transylvania (at that time parts of Hungary). His data are chiefly based on the publication of KOWARZ (1873), who mainly collected in Banat, and on the one of STROBL (1897) who collected in the environs of Sibiu (Hermannstadt) and in the mountains south of this town. THALHAMMER listed a total of 51 species.

In 1957 the senior author took up the study of Roumanian crane-flies. In a few years the number of species rose from 51 to 84 and most probably this number will increase still more.

This communication will be a preliminary synopsis of the crane-flies of Roumania. It will eventually be followed by a more extensive study, when this fauna is better known. Most of the species collected before 1900 were preserved in the Budapest Museum and were destroyed by the fire of 1956. So a corroboration of the determinations is impossible. Most of them were presumably correctly identified but mistakes may have been made, especially when, subsequent to identification, new related species are described. All doubtful species are listed with a question-mark. Of these 14 species 9 have been collected again in the last few years. It is more or less certain that the five remaining species also occur in Roumania and for the time being we have included them to the total number. Most probably they will be collected in the near-by future.



Map 1. Collecting places mentioned in this study (For the mountains see map 2).



O.-Valko	Vilcaul Rominesc (in Salaj)
Peer	Pir
Peleszarvad	Sarvazel
Schulergebirge	Mts. Postavarul
Szekely-Keresztur	Cristurul Secuesc
Szt-Erzsebet	Gusterita (near Sibiu)
Zibinsgebirge	Mt. Cibin
Zilah	Zalâu
Zovany	Zorany

On map 2 the better-known regions are encircled:

- 1 Environs of Bâile Herculane: 33 species known, most of them collected by KOWARZ.
- 2 The region of Postavarul Mts. (Bucegi Mts., Sinaia etc.): 31 species known, most of them collected by STROBL, SERBAN and ERHAN.
- 3 Sibiu and environs: 18 species known, mostly collected by STROBL.
- 4 Bucuresti and environs: 16 species, mostly collected by ERHAN.
- 5 North-east Roumania (Zalâu, Tasnad, etc.): 13 species known, collected by several entomologists.
- 6 The Dobrogea-region: 12 species known, collected by ERHAN.
- 7 Mt. Pietrosul and environs: 10 species known, for the greater part collected by ERHAN.

From the other places mentioned on map 1 only a few species are known. It appears that the south and the east chain of the Carpathians are rather well known (Baile Herculane and environs, Sibiu and environs, Postavarul Mts., Mt. Pietrosul and environs). In the other parts of Roumania the cranefly-fauna is still fairly incompletely known.

A new species and a new subspecies.

*Tipula (Vestiplex) excisa carpatica* Erhan & Theowald nov. ssp.

♂, ♀: much resembling the typical species, but antennae and abdomen blackish-grey instead of reddish-brown; the praescutal stripes often less distinctly marked; ♂ the lateral spines of 9t sometimes a little shorter and less acute than in the typical subspecies but always longer and clearly more acute than in *Tipula cinerea* Strobl.

The colouration of this subspecies resembles that of *T. cinerea* but the shape of the hypopygium shows that it is a subspecies of *excisa*. The specimens mentioned by STROBL (1897) as var. *cinerea* probably belong to the subspecies here described.

H o l o t y p e : ♂ Bucegi Mts., Piatra arva, 3.VIII.1960, E. ERHAN leg., in coll. ERHAN, Bucuresti.

P a r a t y p e s : a number of ♂ and ♀ from the Bucegi mountains, ERHAN leg., in coll. ERHAN, Bucuresti and in Museum Amsterdam; some ♂ and ♀ from Bucegi, Bolboci, 21—27.VII.1938, 1400—2000 m, PEUS leg. and ded., in Museum A. Koenig, Bonn, in Museum Amsterdam and in Museum Vienna; some ♂ and ♀ from Pofifefsko and Mt. Goverla (Stanislavski region, S. E. Ukraine) leg. SAGAIKEV, in Museum Leningrad and Amsterdam.

June, July, August; 1400—2000 m; south, east and north Carpathians.

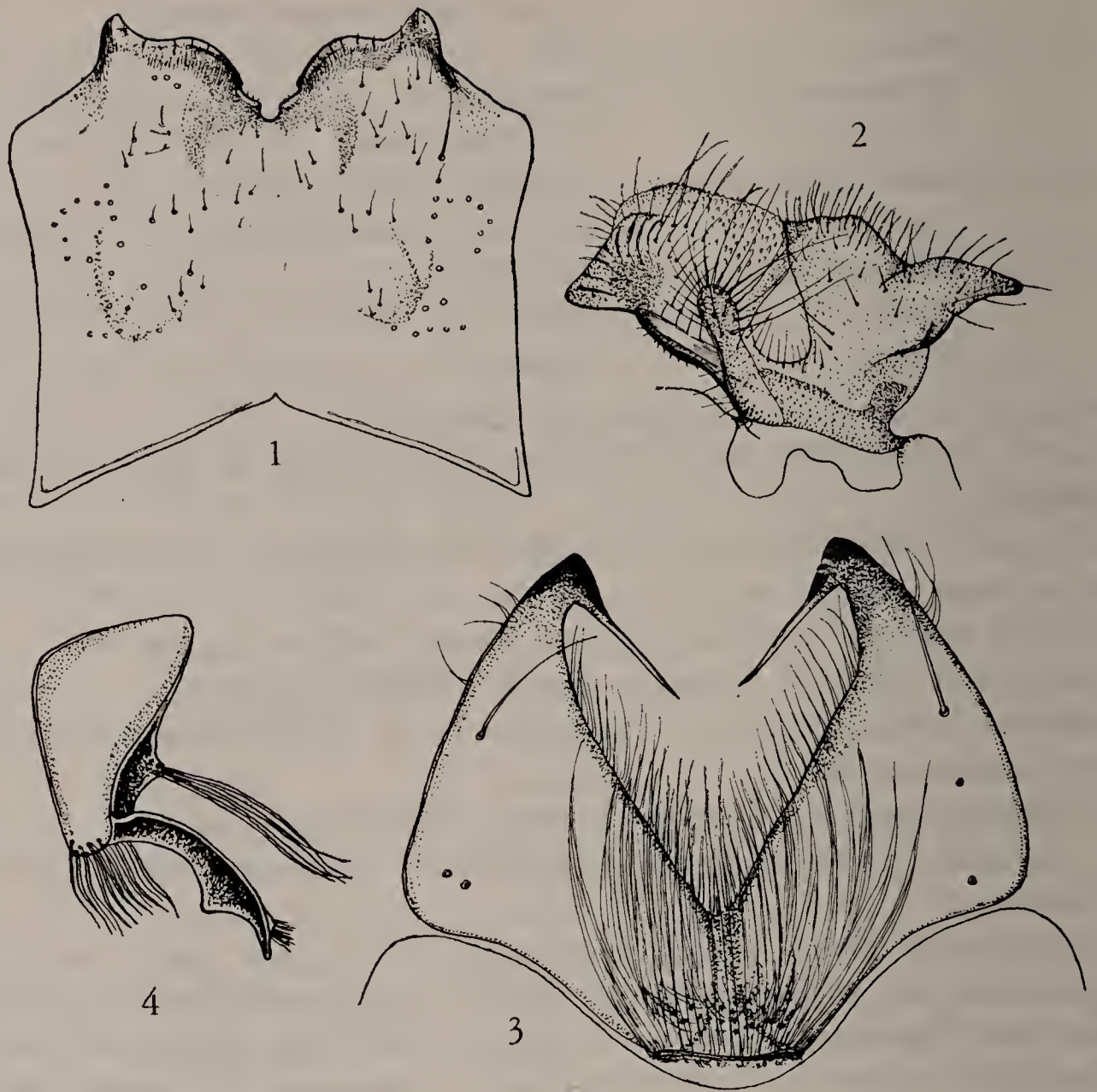


Fig. 3. *Tipula (Lunatipula) istriana* Erhan & Theowald, nov. spec. 1 tergite 9; 2 id and od; 3 sternite 8; 4 processes of sternite 9.

***Tipula (Lunatipula) istriana* Erhan & Theowald nov. spec.**

Related to *Tipula acuminata* Strobl, having the distal end of the 9s appendices broadened and sclerotised, but differing in many other details of the male hypopygium.

♂. — Praescutum yellowish with three scarcely indicated brown stripes, the intermediate somewhat lighter coloured in the middle line. Abdomen also yellowish with a faint dark middle line. Wings transparent with the front margin somewhat yellowish and a faint stigma, whitish wing-patch only slightly passing the discal cell. Antennae yellow. About 12 short squamal hairs, halteres pale yellow.

Hypopygium large, sternite 8 with a median terminal tuft of long golden hairs and a pair of lateral processes which end in a rather short spine; processes of sternite 9 widening distad and sclerotised; tergite 9 with a narrow median incision (see figures).

♀ still unknown.

Holotype: ♂ Canaraua fetii, Baneasa forest, Dobrogea, 14.VI.1960, E. ERHAN leg., in coll. ERHAN, Bucuresti.

Paratypes: 5 ♂ with the same data in Museum Amsterdam and in coll. ERHAN, Bucuresti.

## LIST OF THE SPECIES KNOWN FROM ROUMANIA AT PRESENT

- Dictenida bimaculata* (Linnaeus): Baile Herculane (KOWARZ, THALHAMMER); Zalau, Gîrceni, Sibiu (THALHAMMER).
- Tanyptera atrata* (Linnaeus): Baile Herculane (KOWARZ, THALHAMMER); Valea Ungirului, Zalau, Sibiu (THALHAMMER); Sibiu (STROBL); Tomnatec Daia/Cîmpulune (NEGRU).
- Flabellifera pectinicornis* (Linnaeus): Sibiu (STROBL); Gusterita/Sibiu (THALHAMMER); Sinaia (NEGRU).
- *guttata* (Wiedemann): Sibiu (STROBL); Baile Herculane (THALHAMMER).
- *flaveolata* (Fabricius): Sibiu (STROBL, THALHAMMER); Pitesti (SAVULESCU).
- *elegans* (Meigen): Baile Herculane (KOWARZ, THALHAMMER).
- *festiva* (Meigen): Sibiu (STROBL, THALHAMMER), Mehadia (THALHAMMER).
- *ornata* (Wiedemann): Baile Herculane (THALHAMMER).
- Pales flavescens* (Linnaeus): Baile Herculane (KOWARZ, as *Pachyrrhina histrio* Fabricius)?, common in the whole country (THALHAMMER, as *Pachyrrhina histrio* Fabricius)?, Sinaia (ROMAN).
- *submaculosa* (Edwards): Orsava (DOBREANU).
- *maculata* (Meigen): Pele, Tasnad (THALHAMMER, as *Pachyrrhina maculosa* Meigen); Buda/Bucuresti (TONIUC).
- *cornicina* (Linnaeus): Zalau, Baile Herculane, Zorani (THALHAMMER); Cernica/Bucuresti, Cîmpina, Urleta, Nasaud (ERHAN).
- *tenuipes* (Riedel): Bolboci/Mts. Bucegi (ERHAN).
- *aculeata* (Loew): Baile Herculane (KOWARZ, THALHAMMER); Resita (THALHAMMER); Puzdrele/Mt. Pietrosul (ERHAN).
- *lunulicornis* (Schummel): Baile Herculane (KOWARZ, THALHAMMER); Mehadia (THALHAMMER); Mts. Bucegi (SERBAN).
- *scurra* (Meigen): Pir, Tasnad (THALHAMMER); Borsa, Nasaud (ERHAN).
- *flavipalpis* (Meigen): Sibiu (STROBL, THALHAMMER).
- *scalaris* (Wiedemann): Baile Herculane (KOWARZ: as *Pachyrrhina imperialis* Meigen; THALHAMMER; as *Pachyrrhina imperialis* Meigen); Braila (BELDESCU); Navodari/Dobrogea (DOBREANU); Sinaia (POPESCU-GORJ); Bucuresti, Puzdrele/Mt. Pietrosul (ERHAN).
- *crocata* (Linnaeus): Baile Herculane (THALHAMMER).
- *pratensis* (Linnaeus): Baile Herculane, Resita, Tasnad, Sibiu, Pir (THALHAMMER)?, Sibiu (STROBL)?, Bolboci/Mts. Bucegi (ERHAN).
- *lindneri* Mannheims: Valea Montrului/Oltenia (SERBAN).
- *analisis* (Schummel): Baile Herculane, Cristurul Secuesc (THALHAMMER).
- *quadrifaria* (Meigen): Baile Herculane (KOWARZ, THALHAMMER).
- Tipula (Tipula) oleracea* Linnaeus: Baile Herculane (KOWARZ)?, common in the whole country (THALHAMMER)?; Sibiu (STROBL)?; Sinaia (ERHAN).
- *paludosa* Meigen: Tasnad (THALHAMMER)?; Tîrgu-Ocna (PARASCHIVESCU); Ineu/Crisana (DINULESCU); Sinaia (GRUIA).
- *czizeki* de Jong: Padina/Mts. Bucegi (IENISTEA); Cernica/Bucuresti (ROMASCU).
- *orientalis* Lackschewitz: Mamaia (IENISTEA); Pad. Comarova/Dobrogea (FUHN); Pad. Esichioi/Dobrogea, Pad. Ciufitu/Dobrogea, Bucuresti (ERHAN).

- *italica* Lackschewitz: Mehadia (IENISTEA); Valea Neajlovului/Bucuresti (NEGREA).
- *luna* Westhoff: Valea Montrului/Oltenia (SERBAN).
- *pruinosa* Wiedemann: Sinaia (ERHAN).
- *caesia* Schummel: Bolboci/Mts. Bucegi (PEUS); Sinaia (ERHAN).
- Tipula (Yamatotipula) lateralis* Meigen: Baile Herculane, Resita (THALHAMMER)?; Sinaia (ROMAN, IENISTEA); Cîmpina (ERHAN); Closani/Oltenia, Bistrita Pingarati/Bacau (SERBAN).
- *montium* Egger: Sibiu (STROBL)?; Sibiu (THALHAMMER)?; Bistrita Pingarati/Bacau (ERHAN).
- *couckei* Tonnoir: Valea Rîului Turu Porumbesti/Arges (BANARESCU).
- Tipula (Acutipula) fulvipennis* DeGeer: Sibiu (STROBL: as *Tipula lutescens* Fabricius); Mt. Cibin (THALHAMMER: as *Tipula lutescens* Fabricius); Brosteni/Bacau (NEGREA); Borsa (ERHAN).
- *maxima* Poda: Baile Herculane (KOWARZ, THALHAMMER: as *Tipula gigantea* Schrank); Mehadia, Valiug, Zalau, Vilcaul Romînesc/Salaj (THALHAMMER: as *Tipula gigantea* Schrank), Sinaia (IENISTEA).
- Tipula (Anomaloptera) nigra* Linnaeus: Sibiu (STROBL, THALHAMMER); Sarvazel, Tasnad (THALHAMMER); Buda/Bucuresti (ERHAN).
- Tipula (Schummelia) variicornis* Schummel: Baile Herculane (KOWARZ, THALHAMMER)?
- Tipula (Vestiplex) scripta* Meigen: Mts. Postavarul, Sibiu (STROBL); Tasnad (THALHAMMER); Sinaia (NEGRU, ERHAN); Mt. Ciucas (ERHAN); Miercurea Ciuc (PRUNESCU).
- *nubeculosa* Meigen: Tasnad (THALHAMMER)?; Malaesti/Mts. Bucegi (SERBAN); Busteni/Ploiesti (ERHAN).
- *hortorum* Linnaeus: Mts. Bucegi (SERBAN).
- *excisa carpatica* Erhan & Theowald, nov. ssp.: Mts. Postavarul, Mt. Cindrel, Mt. Negoii (STROBL, THALHAMMER: as *Tipula excisa*, var. *cinerea* Strobl); Bolboci/Mts. Bucegi (PEUS); Mts. Bucegi (ERHAN).
- *excisoides* Alexander: Capul muntelui/Mts. Semenic (THALHAMMER), Retyezat Ujhelye (in coll. Museum Budapest).
- *cinerea hemiptera* Mannheims: Mt. Peleage (= Retyezat, SCILADY); Mt. Negoii (= Nagy Arpas, Mt. Fogaras, CSIKI); Bolboci/Mts. Bucegi (PEUS); Mts. Bucegi (ERHAN).
- Tipula (Lunatipula) lunata* Linnaeus: Sibiu (STROBL: as *Tipula ochracea* Meigen)?; Baile Herculane (KOWARZ, THALHAMMER: as *Tipula ochracea* Meigen)?; Buda/Bucuresti (ERHAN); Curtea de Arges (BANARESCU); Vatra Dornei/Suceava (ERHAN).
- *soosi soosi* Mannheims: Greaca/Bucuresti (NEGREA); Buda/Bucuresti, Valul Traian/Dobrogea (ERHAN).
- *peleostigma* Schummel: Baile Herculane (KOWARZ, THALHAMMER)?; Valiug (THALHAMMER)?; Valul Traian/Pad. Ciufitu/Pad. Esichioi/Pad. Baneasa/Agigea/Dobrogea, Ciulnita/Bucuresti (ERHAN).
- *heros* Egger: Baile Herculane (KOWARZ, THALHAMMER).
- *fascipennis* Meigen: Borsa (ERHAN).
- *vernalis* Meigen: Pele (THALHAMMER), Buda/Bucuresti (ERHAN).

- *helvola* Loew: Baile Herculane (KOWARZ, THALHAMMER); Tasnad, Sarvazel, Resita, Plavisevita (THALHAMMER), Babadag/Pad. Ciufitu/Pad. Comarova/Pad. Baneasa/Dobrogea, Pad. Cernica/Bucuresti (ERHAN).
- *cinerascens* Loew: Resita (THALHAMMER).
- *istriana* Erhan & Theowald, nov. spec.: Pad. Baneasa/Dobrogea (ERHAN).
- *truncata* Loew: Turnul Severin (KOWARZ); Baile Herculane (KOWARZ, THALHAMMER); Valul Traian/Pad. Comarova/Pad. Ciufitu/Pad. Esichioi/Pad. Baneasa/Dobrogea, Bucuresti (ERHAN).
- *bispina* Loew: Baile Herculane (KOWARZ, THALHAMMER); Ieselnita/Banat (SERBAN).
- *alpina* Loew: Götzenberg (near Sibiu?, STROBL), Mts. Postavarul (THALHAMMER).
- *brunneinervis* Pierre: Pad. Baneasa/Dobrogea (ERHAN).
- *limitata* Schummel: Mts. Bucegi (ERHAN).
- *livida* van der Wulp: Pad. Baneasa/Dobrogea (ERHAN).
- *fuscicosta* Mannheims: Closani/Oltenia (SERBAN).
- *circumdata* Siebke: Mt. Ceahlau (PRUNESCU).
- *pannonia* Loew: Baile Herculane (KOWARZ, THALHAMMER).
- Tipula (Oreomyza) varipennis* Meigen: Baile Herculane (THALHAMMER)?
- *pseudovariipennis* Czizek: Mts. Bucegi (SERBAN).
- *hortulana* Meigen: Mt. Cindrel (STROBL)?; Baile Herculane (KOWARZ)?; Mt. Cibin (THALHAMMER)?
- *luridirostris* Schummel: Mt. Pietrosul (ERHAN).
- *obsoleta* Meigen: Cîmpina (ERHAN).
- *cheethami* Edwards: Valea Malaiesti/Mts. Bucegi (SERBAN).
- *macrocera* Zetterstedt: Mts. Fagarasi/Mt. Negoii (ERHAN).
- *subinvenusta* Slipka: Mts. Bucegi (ERHAN).
- *subnodicornis* Zetterstedt: Bolboci/Mts. Bucegi (ERHAN).
- *austriaca* Pokorny: Mts. Bucegi (ERHAN).
- *pabulina* Meigen: Baile Herculane (KOWARZ, THALHAMMER); Sinaia (CANTOREANU).
- *truncorum* Meigen: Sibiu (STROBL); Baile Herculane (KOWARZ, THALHAMMER); Sibiu (THALHAMMER); Mts. Bucegi (ERHAN).
- *nervosa* Meigen: Mt. Negoii, Mt. Cindrel (STROBL); Mt. Negoii, Mt. Cibin (THALHAMMER).
- *crassiventris* Riedel: Mts. Bucegi (SERBAN); Anina (LACKSCHEWITZ).
- *irrorata* Macquart: Baile Herculane (KOWARZ, THALHAMMER: as *Tipula pictipennis* Staeger); Sinaia (SERBAN).
- *hortensis* Meigen: Mt. Cindrel (STROBL); Mt. Cibin (THALHAMMER).
- *unca* Wiedemann: Sinaia (SERBAN).
- *luteipennis* Meigen: Pad. Comana/Bucuresti (NEGREA).
- *flavolineata* Meigen: Mts. Bucegi (SERBAN).
- *juncea* Meigen: Baile Herculane (KOWARZ, THALHAMMER: as *Tipula nodicornis* Meigen).
- Tipula (Mediotipula) bidens* Bergroth: Visterna Babadag/Dobrogea (ERHAN).
- *stigmatella* Schummel: Baile Herculane (KOWARZ, THALHAMMER); Resita (THALHAMMER).

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 Mededeling

Het vierde congres van de 'Union International pour l'Étude des Insectes Sociaux', gehouden te Pavia, Italië, op 9—14 september 1961.

Dank zij een tegemoetkoming van de Uyttenboogaart—Eliassen Stichting had ondergetekende gelegenheid dit congres bij te wonen; hij was er de enige Nederlander. Het aantal deelnemers bedroeg ruim 150 (exclusief de dames-echtgenoten), voor  $\frac{2}{5}$  bestaande uit Italianen, voor  $\frac{1}{5}$  uit Fransen en voor de rest uit diverse nationaliteiten. Vertegenwoordigers van de landen in Oost-Europa, die zich voor het congres hadden opgegeven, waren niet verschenen. De meeste bijeenkomsten werden gehouden in het Zoölogisch Instituut „Spallanzani", dat deel uitmaakt van de oude, bekende Universiteit van het zeer bezienswaardige stadje Pavia. In dit instituut was ook een goed verzorgde tentoonstelling ondergebracht van literatuur, foto's, vraatstukken, kweekmethoden, enz. met betrekking tot sociale insecten. De ontvangst door de autoriteiten en door het bestuur van de Italiaanse sectie van de U.I.E.I.S. (voorzitter: Professor Carlo JUCCI) was zeer gastvrij. Bijna alle toespraken en vele lezingen waren echter in het Italiaans. Veel deelnemers waren, naar Italiaans gebruik, voor de nachten ondergebracht in de typische, eeuwenoude, maar inwendig gemoderniseerde collegia of studentenhuizen.

Het programma omvatte vier symposia, nl. over Endocrinologie, Kasten-differentiatie, Symbiose (een paar belangrijke bijdragen, verder aangevuld met sociaal parasitisme bij mieren), en 'Gregarism and subsociality' (bij Orthoptera, Hymenoptera en Psocoptera). Bijeenkomsten in afzonderlijke secties waren gewijd aan de biologie van termieten, mieren, en bijen/wespen, elk met ongeveer 14 voordrachten. In een vierde sectie 'Applications' werden onderwerpen als laboratorium-experimenten, proeven met bestrijdingswijzen, biologische bestrijding van bosplagen door mieren e.d. behandeld. De belangrijkste excursies gingen naar een *Pinusbos* in de Appenijnen, waar met succes kolonies van de rode bosmier waren uitgezet, en naar laboratoria en proefvelden op en bij Monte Terminillo (N.O. van Rome) op 15 en 16 september.

De handelingen van het congres zullen in een uitgave van het Spallanzani-instituut worden afgedrukt. Professor P. P. GRASSÉ, Parijs, stemde er in toe om als voorzitter van de Union te blijven optreden.

KALSHOVEN.