

TORTS

Newsletter of the Troop of Reputed Tortricid Systematists

MORE COMMON NAMES OF TORTRICIDAE

In response to the list of common names of Tortricidae included in the last newsletter, Eric LaGasa and Chris Maier both provided additions, which include the following:

- apple leaf-twister - *Acleris nivisellana* (Walsingham)
- apple tortrix - *Archips fuscocupreanus* Walsingham
- apricot moth - *Ditula angustiorana* (Haworth)
- barred fruittree tortrix - *Pandemis cerasana* (D. & S.)
- dark fruittree tortrix - *Pandemis heparana* (D. & S.)
- European leafroller - *Archips rosanus* (Linnaeus)
- European spruce needleminer - *Epinotia nanana* (Treitschke)
- fall spruce needle moth - *Argyrotaenia occultana* (Douglas)
- garden rose tortrix - *Acleris variegana* (D. & S.)
- green needleworm - *Clepsis persicana* (Fitch)
- jack pine tube moth - *Argyrotaenia tabulana* Freeman
- larch tubemaker - *Spilonota laricana* (Heinemann)
- pitch pine budworm - *Choristoneura pinus maritima* Freeman
- pandemis leafroller - *Pandemis pyrusana* Kearfott
- plum fruit moth - *Grapholita funebrana* (Treitschke)
- poplar shoot borer - *Gypsonoma aceriana* (Duponchel)
- purple-striped shootworm - *Zeiraphera unfortunana* Powell
- rose bud borer - *Notocelia cynosbastella* (Linnaeus)
- rose leafroller - *Hedya ochroleucana* (Froelich)
- rose shoot borer - *Notocelia rosaecolana* Doubleday
- straw-colored tortrix - *Clepsis spectrana* (Treitschke)
- strawberry tortrix - *Acleris comariana* (Zeller)
- sumac leafroller - *Episimus argutanus* (Clemens)

If you would like a complete list of the names, I can send you one either as a hard copy or e-mail attachment. If you have names to add, please contact John Brown (jbrown@sel.barc.usda.gov).

PROGRESS ON DATABASING AT THE NATURAL HISTORY MUSEUM, LONDON

Kevin Tuck reports that lepidopterists at The Natural History Museum, London, recently (January 2004) finished databasing all the Lepidoptera species in their main world collection, resulting in a "guide" to what species are present in the collection and in which drawer the specimens reside. Special collections, such as the Meyrick boxes and Zeller collection, have not yet been completed. Primary types are noted as such in the database, and this information will be included in LepIndex as it continues to be updated on the web.

STATUS OF THE CATALOG OF TORTRICIDAE OF THE WORLD

The world catalogue of Tortricidae has been submitted to the Apollo Books series "Catalogue of Insects of the World." The catalogue will cover all new taxonomic names and changes proposed in the literature up to 31 December 2003. TORTS member Dr. Bernard Landry currently is the acting editor of the series, and he is providing the editing for this volume. Although we do not have a firm schedule, the book is likely to appear before the end of 2004.

This truly has been a "community effort," and I appreciate all the input, suggestions, identification of errors, and answers to inquiries provided by TORTS members and others in the Lepidoptera community.

NEW BOOKS ON EUROPEAN TORTRICIDAE

Tortricidae of Europe, Volume 2. Olethreutinae, by Jozef Razowski, published December 2003, Frantisek Slamka, Bratislava. Text in English; size 30 x 21.5 cm; 301 pages, 95 plates of male and female genitalia, 18 color plates of adults; hardcover. ISBN 80-969052-0-1. For purchase: slamkaf@nextra.sk.

This is the second volume of the "Tortricidae of Europe" and covers the subfamily Olethreutinae, with 547 species. It includes detailed descriptions of European olethreutines including their synonymy, morphology, biology, and distribution. Exquisite color photographs and drawings of male and female genitalia are provided for each species. This 2-volume set is truly a state-of-the-art publication on the Tortricidae of Europe.

Catalogo di Lepidoptera Tortricidae della fauna italiana [Catalogue of the Lepidoptera Tortricidae of the Italian Fauna: geonemy, Italian distribution, biological notes, identification], by Pasquale Trematerra, published 2003. *Bollettino di Zoologia agraria e di Bachicoltura*, Series II, 35 (supplement 1): 1-270. Text in Italian; size 23.5 x 17 cm; 270 pages, 633 distribution maps; soft cover. ISSN 0336-2403.

"Abstract. In the present catalogue 633 Lepidoptera Tortricidae species hitherto recorded in Italy are presented. The atlas contains for each geonemy, Italian distribution (with Italian and European maps), biological notes, and references for the identification. The catalogue of Italian Tortricidae is primarily a faunistic survey, where for each species records of its occurrence within the five Italian regional districts are given: Northern Italy (Valle d'Acosta, Piemonte, Lombardia, Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia, Liguria, and Emilia-Romagna regions), Central Italy (Toscana, Marche, Umbria, Lazio, Abruzzo and Molise regions), Southern Italy (Campania, Puglia, Basilicata, and Calabria regions), Sicilia, Sardegna. The work is also a checklist in which the systematic arrangement and the

nomenclature have been up-dated in accordance with recent progress in research. It is the author's hope that the present catalogue will provide a firm foundation for continued research on the Italian fauna of Lepidoptera Tortricidae."

USNM TORTRICID TYPES NOW ON THE WEB

Todd Gilligan's website, tortricid.net, now features photographs of nearly all the Tortricidae type holdings of the National Museum of Natural History, Smithsonian Institution, Washington, DC. Check it out! Go to: <http://www.tortricidae.com/>

DIAKONOFF REPRINTS AVAILABLE FROM LEIDEN

Alex Diakonoff was one of the most prolific tortricid workers of the 20th century. His published work, which spans from about 1936 to 1989, includes over 250 papers, mostly on Tortricidae. Much of his early work focused on the fauna of Indonesia, New Guinea, and Madagascar, but like all great systematists, there is "something for everybody" to be found among his extensive bibliography.

Dr. Erik van Nieukerken, National Museum of Natural History Naturalis, Leiden, Netherlands, has compiled a complete list of Diakonoff's publications and has kindly offered to send TORTS members reprints of any of those papers still available. In general, there are very few copies of Diakonoff's early work (i.e., first ca. 100 papers), except some of those that appeared in *Treubia*, *Tijdschrift voor Entomologie*, *Zoologische Mededelingen*, and *Zoologische Verhandelingen*. However, according to Erik there are good stocks of about two-thirds of Alex's last 100-150 papers. You can reach Erik by e-mail at nieukerken@naturalis.nnm.nl.

TORTRICIDAE BIBLIOGRAPHY FOR 2002

- Baixeras, J. 2002. An overview of genus-level taxonomic problems surrounding *Argyroproctea* Huebner (Lepidoptera: Tortricidae), with description of a new species. *Annals of the Entomological Society of America* 95: 422-431.
- Bedard, C., R. Gries, C. Gries & R. Bennett. 2002. *Cydia strobilella* (Lepidoptera: Tortricidae): antennal and behavioral responses to host and nonhost volatiles. *Canadian Entomologist* 134: 793-804.
- Bedard, C., R. Gries, C. Gries & R. Bennett. 2002. Sex pheromone and diel periodicity of *Cydia strobilella* (Lepidoptera: Tortricidae) pheromonal communication. *Canadian Entomologist* 134: 847-850.
- Bjornstad, O. N., M. Peltonen, A. M. Liebhold & W. Baltensweiler. 2002. Waves of larch budmoth outbreaks in the European Alps. *Science* 298: 1020-1023.
- Brenner, G. J., P. T. Oboyski & P. C. Banko. 2002. Parasitism of *Cydia* spp. (Lepidoptera: Tortricidae) on *Sophora chrysophylla* (Fabaceae) along an elevation gradient of dry subalpine forest on Mauna Kea, Hawaii. *Pan-Pacific Entomologist* 78: 101-109.
- Brockhoff, E. G., H. Jactel, A. C. Leckie & D. M. Suckling. 2002. Species composition and abundance of leafrollers in a Canterbury pine plantation. *New Zealand Plant Protection* 55: 85-89.
- Brockhoff, E. G., M. Kenis & J. J. Turgeon. 2002. *Cydia strobilella*, spruce seed moth (Lepidoptera: Tortricidae), pp. 94-98. In: Mason, P. G. & J. T. Huber (eds.), *Biological Control Programmes Against Insects and Mites, Weeds, and Pathogens in Canada, 1981-2000*. CABI Publishing, Wallingford, Oxon, UK.
- Brown, J. W. & D. Adamski. 2002. One new species and one new combination in *Netechma* Razowski (Lepidoptera: Tortricidae: Euliini). *Journal of the New York Entomological Society* 11: 247-254.
- Brown, J. W. & T. McPherson. 2002. Review of *Rebinea* Razowski and *Eliachna* Razowski (Lepidoptera: Tortricidae: Euliini) - sister genera endemic to Chile and Argentina. *Journal of the Lepidopterists' Society* 55 (2001): 129-139.
- Brown, J., J. Pena, T. Vazquez & J. Baixeras. 2002. Description of a new tortricid pest (Lepidoptera: Tortricidae: Olethreutidae) of litchi (*Litsea chinensis*) in southern Florida, with a review of tortricid pests of litchi worldwide. *Proceedings of the Entomological Society of Washington* 104: 318-329.
- Buchsbaum, U. & M. A. Miller. 2002. *Cerace diehli* sp. n. from Sumatra (Indonesia) (Lepidoptera, Tortricidae, Tortricinae). *Heterocera Sumatrana* 12: 155-163.
- Burleigh, J. S., R. I. Alfaro, J. H. Borden & S. Taylor. 2002. Historical and spatial characteristics of spruce budworm *Choristoneura fumiferana* (Clem.) (Lepidoptera: Tortricidae) outbreaks in northeastern British Columbia. *Forest Ecology and Management* 168: 301-309.
- Carisey, N. & E. Bauce. 2002. Does nutrition-related stress carry over to spruce budworm, *Choristoneura fumiferana* (Lepidoptera: Tortricidae) progeny? *Bulletin of Entomological Research* 92: 100-108.
- Clifton, J. 2002. *Strophedra weirana* (Douglas) (Lep.: Tortricidae) new to West Suffolk. *Entomologist's Record and Journal of Variation* 114: 160.
- Cossentine, J. E., L. B. Jensen & L. Moyls. 2002. Fruit bins washed with *Steinernema carpocapsae* (Rhabditida: Steinernematidae) to control *Cydia pomonella* (Lepidoptera: Tortricidae). *Biocontrol Science and Technology* 12: 251-258.
- El-Sayed, A. M. & R. M. Trimble. 2002. Relative attractiveness of natural and synthetic pheromone of three tortricid fruit pests. *Environmental Entomology* 31: 960-964.
- Embacher, G. 2002. The Tortricidae (Lepidoptera) of the Province Salzburg, Austria. *Beitrage zur Entomofaunistik* 3: 65-79.

- Emelyanov, V. A., Z. V. Nikolaeva, I. N. Pavlov & E. I. Ovsyannikova. 2002. Determination of the degree of emergence synchronism by the pheromone control in tortricids (Lepidoptera, Tortricidae) in apple orchards of northwestern Russia. *Entomological Review* 82: 1103-1111.
- Goldberg, A. V., V. Romanowski, B. A. Federici & A. Sciocco de Cap. 2002. Effects of the Epap granulovirus on its host, *Epinotia aporema* (Lepidoptera: Tortricidae). *Journal of Invertebrate Pathology* 80 (3): 148-159.
- Grant, G. G., P. de Groot, D. Langevin, S. A. Katovich, K. N. Slessor & W. E. Miller. 2002. Sex attractants and seasonal flight period patterns for three *Eucosma* (Lepidoptera: Tortricidae) species sympatric in eastern pine seed orchards and plantations. *Canadian Entomologist* 134: 391-401.
- Groenen, F. 2002. *Cydia orobana* (Treitschke, 1830) and *Epinotia festivana* (Huebner, 1779), two tortricids new to Spain (Lepidoptera: Tortricidae). *SHILAP Revista Lepidopterologia* 30 (120): 269-270.
- Groenen, F. & H. Ozbek. 2002. *Aethes margaritifera*, a new species for Turkey (Lepidoptera: Tortricidae). *Phegea* 30 (1): 37-39.
- Hellers, M. 2002. The Tortricidae of Luxemborg: a checklist with comments (Lepidoptera: Tortricidae). *Phegea* 30: 61-79. [In German]
- Hill, R. L. & A. H. Gourlay. 2002. Host-range testing, introduction, and establishment of *Cydia succedana* (Lepidoptera: Tortricidae) for biological control of gorse, *Ulex europaeus* L. in New Zealand. *Biological Control* 25: 173-186.
- Hillier, N. K., P. L. Dixon, W. D. Seabrook & D. J. Larson. 2002. Field testing of synthetic attractants for male *Grapholita libertina* (Lepidoptera: Tortricidae). *Canadian Entomologist* 134: 657-666.
- Ioriatti, C., L. Flaim & M. Zini. 2002. Use of sex pheromone traps to monitor insecticide resistance in European grape moth *Lobesia botrana* (Lepidoptera: Tortricidae). *Bulletin of Insectology* 55: 13-19.
- Jaros, J. & K. Spitzer. 2002. Food plants of Lepidoptera associated with an alder carr forest in South Bohemia (Central Europe). *Zoological Studies in the Vrbenske Rybniky Reserve (South Bohemia, CZ)*. Rocnik 42 (supplement): 5-60
- Jena, B. C., S. K. Mohanty, P. R. Mishra & S. N. Jena. 2002. Leaf folder infestation in grain *Amaranthus* and effect of climate on its population. *Indian Journal of Entomology* 64: 35-38.
- Jimenez-Perez, A., Q. Wang & N. P. Markwick. 2002. Adult activity patterns of *Cnephasia jactatana* Walker (Lepidoptera: Tortricidae). *New Zealand Plant Protection* 55: 374-379.
- Kogi, H. 2002. Moths feeding on *Quercus dentata* Thunb. as larvae in Hokkaido. 3. Japan Heterocerists' Journal 220: 385-387. [In Japanese]
- Komatsu, T. & T. Inoko. 2002. Hibernation of *Cryptophlebia yasudai* Kawabe (Tortricidae) in Hokkaido. *Yugato* 168: 78-79. [In Japanese]
- Krauth, S. J. 2002. First records of *Aethes heleniana* (Lepidoptera: Tortricidae) in Wisconsin. *Great Lakes Entomologist* 34 (1): 29-30.
- Krupke, C. H., B. D. Roitberg & G. J. R. Judd. 2002. Field and laboratory responses of male codling moth (Lepidoptera: Tortricidae) to a pheromone-based attract-and-kill strategy. *Environmental Entomology* 31: 189-198.
- Kruse, J. J. & F. A. H. Sperling. 2002. Phylogeny of Nearctic species of the Xylostearia group of *Archips* Huebner (Lepidoptera: Tortricidae) based on combined analysis of the morphological and mitochondrial DNA data sets. *Annals of the Entomological Society of America* 95: 288-301.
- Kubasik, W. 2002. *Pammene ignorata* V. I. Kuznetsov, 1968 (Lepidoptera: Tortricidae) - a species new for the Polish fauna. *Polskie Pismo Entomologiczne* 71: 397-399.
- Kubasik, W., K. Larsen & A. Chrzanowski. 2002. *Lobesia virulenta* Bae et Komai, 1991 (Lepidoptera: Tortricidae) in Poland. *Polskie Pismo Entomologiczne* 71: 19-22.
- Kuznetsov, V. I. 2002. A review of flat tortricid genera of the tribe Tortricini (Lepidoptera, Tortricidae) of East Asia. *Entomol. Obozrenie* 81: 174-196. [In Russian]

- Liu, W. T., H. M. Jiao, M. O'Connor & W. L. Roelofs. 2002. Moth desaturase characterized that produces both Z and E isomers of Delta 11-tetradecenoic acids. *Insect Biochemistry and Molecular Biology* 32 (11): 1489-1495.
- Liu, Y.-Q. & G. Li. 2002. Tortricidae. *Fauna Sinica (Insecta)*. 27. Science Press, Beijing. 463 pp.
- Liu, Y.-X. & X.-Z. Meng. 2002. Identification of sex-pheromone components for *Acleris fimbriana* (Lepidoptera: Tortricidae). *Canadian Entomologist* 134: 511-518.
- Liu, Y.-X. & X.-Z. Meng. 2002. Behavioral response of male *Acleris fimbriana* Thunberg et Becklin (Lepidoptera: Tortricidae) in northern Chinese orchards. *Zeitschrift fuer Naturforschung C, Journal of Biosciences* 58: 421-425.
- Mallampalli, N. & R. Isaacs. 2002. Distribution of eggs and larval populations of cranberry fruitworm (Lepidoptera: Pyralidae) and cherry fruitworm (Lepidoptera: Tortricidae) in highbush blueberries. *Environmental Entomology* 31: 852-858.
- Malumphy, C. & J. Robinson. 2002. Lepidopterous larvae intercepted on imported produce of fresh bean, pea, okra, sweet pepper, aubergine and tomato fruit in England and Wales between 1970 and 2000. *Entomologist's Gazette* 53: 191-202.
- Mansour, M. 2002. Phenology of the codling moth *Cydia pomonella* (L.) (Lepidoptera: Tortricidae) in the southern part of Syria and its damage to apple fruit. *Polskie Pismo Entomologiczne* 71: 79-89.
- Masante-Roca, I., C. Gadenne & S. Anton. 2002. Plant odour processing in the antennal lobe of male and female grapevine moths, *Lobesia botrana* (Lepidoptera: Tortricidae). *Journal of Insect Physiology* 48 (12): 1111-1121.
- Metzler, E. & M. Sabourin. 2002. A new species of *Spinipogon* Razowski, 1967 from two remnant prairies in Ohio (Lepidoptera: Tortricidae, Cochylini). *Faberies* 27: 69-76.
- Miller, W. E. 2002. A new species of *Eucosmomorpha* from North America (Tortricidae). *Journal of the Lepidopterists' Society* 55 (2001): 81-84.
- Murase, M. 2002. Moth larvae feeding on *Glochidion obovatum* Sieb. et Zucc. (Euphorbiaceae). *Japan Heterocerists' Jour.* 220: 381-382.
- Nagarkatti, S., P. C. Tobin, A. J. Muza & M. C. Saunders. 2002. Carbaryl resistance to populations of grape berry moth (Lepidoptera: Tortricidae) in New York and Pennsylvania. *Journal of Economic Entomology* 95: 1027-1032.
- Nunez, S., J. J. De Vlieger, J. J. Rodriguez, J. Persoons & I. Scatoni. 2002. Sex pheromone of South American tortricid moth *Argyrotaenia spheropa*. *J. Chemical Ecology* 28: 425-432.
- Pinto, J. D., A. B. Koopmanschap, G. R. Platner & R. Stouthamer. 2002. The North American *Trichogramma* (Hymenoptera: Trichogrammatidae) parasitizing certain Tortricidae (Lepidoptera) on apple and pear, with ITS2 DNA characterizations and descriptions of new species. *Biological Control: Theory and Applications in Pest Management* 23 (2): 134-142.
- Poirier, L. M. & J. H. Borden. 2002. Qualitative analyses of larval oral exudate from eastern and western spruce budworms (Lepidoptera: Tortricidae). *Journal of the Entomological Society of British Columbia* 98: 243-250.
- Prakash, S., S. K. Pradhan, S. K. Sarkar & S. N. Tripathi. 2002. Influence of boron, zinc, and iron on the incidence of top shoot borer, *Cydia (Laspeyresia) tricentra* Meyr. in sunhemp. *Journal of Entomological Research* 25: 97-100.
- Pronier, I., J. Pare, J. C. Wissocq & C. Vincent. 2002. Nucleopolyhedrovirus infection in obliquebanded leafroller (Lepidoptera: Tortricidae). *Canadian Entomologist* 134: 303-309.
- Pszczolkowski, M. A., L. F. Matos, R. Brown & J. J. Brown. 2002. Feeding and development of *Cydia pomonella* (Lepidoptera: Tortricidae) larvae on apple leaves. *Annals of the Entomological Society of America* 95: 603-607.
- Razowski, J. 2002. The genus *Lepteucosma* Diakonoff, 1971 (Lepidoptera: Tortricidae) in Europe. *Wiad Entomol.* 20: 157-158.
- Razowski, J. 2002. Morphology of papilla analis in Tortricidae (Lepidoptera). *Polskie Pismo Entomologiczne* 71: 307-312.

- Razowski, J. 2002. The genera of Tortricidae (Lepidoptera) common for the Palearctic and Afrotropical regions. *Acta Zoologica Cracoviensia* 45: 197-205.
- Razowski, J. 2002. Notes on *Eana* Billberg, 1820 and *Cnephasia* Curtis, 1826 (Lepidoptera: Tortricidae). *Polskie Pismo Ent.* 71: 225-230.
- Razowski, J. 2002. Miscellaneous notes on Tortricidae (Lepidoptera). 4. *Polskie Pismo Entomologiczne* 71: 231-239.
- Razowski, J. 2002. Supplements to the descriptions of some Afrotropical and Neotropical Tortricidae (Lepidoptera). *Acta Zoologica Cracoviensia* 45: 347-350.
- Razowski, J. 2002. Notes on the Afrotropical archipine genus *Procraca* Diakonoff, 1960 with description of three new species (Lepidoptera: Tortricidae). *SHILAP Revista Lepidopterologia* 30: 235-238.
- Razowski, J. 2002. Tortricidae of Europe. Volume I. Tortricinae and Chlidanotinae. Frantisek Slamka, Bratislava. 247 pp.
- Razowski, J. 2002. Tortricidae Europy srodkowej. *Polska Akademia Nauk, Dzialalnosc naukowa* 14: 64-66.
- Razowski, J. 2002. Uwagi o polskich Tortricidae (Lepidoptera). *Wiacomosci Entomol.* 20: 159-163.
- Razowski, J. & V. O. Becker. 2002. Black and white forewing pattern in Tortricidae (Lepidoptera), with descriptions of new taxa of Neotropical Euliini. *Acta Zoologica Cracov.* 45: 245-257.
- Razowski, J. & V. O. Becker. 2002. Systematic and faunistic data on Neotropical Cochylini (Lepidoptera: Tortricidae), with description of new species. Part 1. *Acta Zoologica Cracoviensia* 45: 287-316.
- Razowski, J. & V. O. Becker. 2002. Description of new species of some known or new Neotropical Euliini genera (Lepidoptera: Tortricidae). *SHILAP Revista Lepidopterologia* 30: 315-323.
- Razowski, J. & V. O. Becker. 2002. Note on *Galomecalpa* Razowski, 1990 (Lepidoptera: Tortricidae), with description of one new species from Ecuador. *Redia* 84: 19-21.
- Razowski, J. & V. O. Becker. 2002. Descriptions of the New World Euliini genus *Euwania*, and its two new species (Lepidoptera: Tortricidae). *SHILAP Revista Lepidopterologia* 30: 213-216.
- Razowski, J. & V. Pelz. 2002. Endotheniina, an olethreutine subtribe new to the South American continent, with description of one new species (Lepidoptera: Tortricidae). *Polskie Pismo Entomologiczne* 71: 313-315.
- Razowski, J. & J. Wojtusiak. 2002. Vestiture of papilla analis in Tortricidae (Insecta: Lepidoptera). *Genus* 13: 379-396.
- Sabourin, M., W. E. Miller, E. H. Metzler & J. T. Vargo. 2002. Revised identities and new species of *Aethes* from midwestern North America. *Journal of the Lepidopterists' Society* 56: 216-233.
- Sciarretta, A., J. Baumgartner & P. Trematerra. 2002. Geostatistical analysis in integrated pest management system design: the utility in *Cydia funebrana* (Treitschke) population management at local level. *Notiziario Sulla Protezione delle Piante* 15: 177-183. [In Italian]
- Sciarretta, A., P. Trematerra & J. Baumgartner. 2002. Geostatistical analysis of *Cydia funebrana* spatial dynamic. OILB Meeting, Erice: in press.
- Sciarretta, A. & P. Trematerra. 2002. Mating disruption of *Cydia molesta* (Busck) by polymeric micro-beads product. *Atti Giornate Fitopatol.* 3: 413-418. [In Italian]
- Serra, G., P. Luciano & G. Giloli. 2002. Indagini sulla distribuzione spaziale delle ovideposizioni di *Tortrix viridana* L. (Lepidoptera Tortricidae) in querceti della Sardegna. Disegno di campionamento in formazioni forestali a *Quercus pubescens* Willd. *Redia* 85: 213-227.
- Severini, M., L. Carlini, R. Alilla, A. M. Dattilo, A. Sciarretta & P. Trematerra. 2002. Simulation of the *Cydia funebrana* (Treitschke) captures by the computer model "Delay Simulator": preliminary results. *Notiziario Sulla Protezione delle Piante* 15: 285-292. [In Italian]
- Sohn, J.-C. 2002. A taxonomic study on the immature stage of leaf-rolling Tortricidae (Lepidoptera) on rosaceous fruit trees in Korea. Master thesis, Kangwon National University. 146 pp.

- Speidel, W. & L. Aarvik. 2002. Synonyms of European Tortricidae and Noctuidae, with special reference to the publications of Hübner, Geyer and Frölich. *Nota Lepidopterologica* 25: 17-21.
- Stevens, P., K. Froud & L. Jamieson. 2002. Effects of adult feeding on longevity and fecundity of *Ctenopseustis obliquana* (Lepidoptera: Tortricidae). *New Zealand Journal of Crop and Horticulture Science* 30 (4): 229-233.
- Sugiura, S. & N. Osawa. 2002. Temporal response of parasitoids to the density of *Eudemis gyrotis* (Lepidoptera: Tortricidae) on bayberry *Myrica rubra* (Myricaceae). *Environmental Entomology* 31: 988-994.
- Sugiura, S. & K. Yamazaki. 2002. Tortricid moths reared from cecidomyiid bud galls on willows. *Transactions of the Lepidopterological Society of Japan* 53: 116-118.
- Todorova, S. I., D. Coderre, C. Vincent & J.-C. Cote. 2002. Screening of *Beauveria bassiana* (Hyphomycetes) isolates against *Choristoneura rosaceana* (Lepidoptera: Tortricidae). *Canadian Entomologist* 134: 77-84.
- Torres-Vila, L. M., M. C. Rodríguez-Molina & J. Stockel. 2002. Delayed mating reduces reproductive output of female European grapevine moth, *Lobesia botrana* (Lepidoptera: Tortricidae). *Bulletin of Entomological Research* 92: 241-249.
- Trematerra, P. & P. Gentile. 2002. New records and zoogeographical analysis of tortricid moths from Valle d'Agosta and Piedmont regions (Italy) (Lepidoptera Tortricidae). *Boll. Mus. Reg. Sci. Nat. Torino*. 19: 73-101.
- Tobin, P. C., S. Nagarkatti & M. C. Suanders. 2002. Diapause maintenance and termination in grape berry moth (Lepidoptera: Tortricidae). *Environmental Entomology* 31 (4): 708-713.
- Triselva, T. A. & A. F. Safonkin. 2002. The structure of the pheromone gland of *Archips podana* (Scopoli) (Lepidoptera: Tortricidae) and attraction of males by females from different host plants. *Byulleten' Moskovskogo Obshchestva Ispytatelei Prirody Otdel Biologicheskii* 107: 3-7. [In Russian]
- Välimäki, P. & J. Itämies. 2002. Occurrence and experimental introduction of *Capricornia boisduvaliana* (Duponchel, 1836) (Lepidoptera: Tortricidae) in Finland. *Entomologica Fennica* 13: 89-97.
- Villagrán, M., A. Jimenez, F. J. Soria & M. E. Ocete. 2002. Muestreo aleatorio simple u muestreo sistemático de las poblaciones de *Curculio elephas* (Gyllenhal) (Col: Curculionidae) y *Cydia fagiglandana* (Zeller) (Lep.: Tortricidae) en encinas. *Boletín Sanidad Vegetal Plagas* 28: 59-66.
- White, M. J. 2002. *Grapholita tenebrosana* (Duponchel, 1843) (Lep.: Tortricidae) in Glamorgan. *Entomologists' Record and Journal of Variation* 114: 161-162.
- Wright, D. J. 2002. A new species of *Epiblema* previously confused with *E. tripartitana* (Zeller) and *E. infelix* Heinrich (Tortricidae). *Journal of the Lepidopterists' Society* 56: 277-285.
- Zhang, G.-F., X.-Z. Meng, Y. Han & C.-F. Sheng. 2002. Chinese tortrix *Cydia trasi* (Lepidoptera: Olethreutidae): suppression on street-planting trees by mass trapping with sex pheromone traps. *Environmental Entomology* 31: 602-607.

TORTICIDAE BIBLIOGRAPHY FOR 2003

- Aarvik, L. 2003. Gjenfunn av veronikapraktvikler, *Aethes triangulana* i Norge. *Insekt-Nytt* 28 (4): 3-4.
- Albert, P. J. 2003. Electrophysiological responses to sucrose from a gustatory sensillum on the larval maxillary palp of the spruce budworm, *Choristoneura fumiferana* (Clem.) (Lepidoptera: Tortricidae). *J. Insect Physiology* 49: 733-738.
- Asaro, C., C. J. Fettig, K. W. McCravy, J. T. Nowak & C. E. Berisford. 2003. The Nantucket pine tip moth (Lepidoptera: Tortricidae): a literature review with management implications. *Journal of Entomological Science* 38: 1-40.

- Atanassov, A., P. W. Shearer & G. C. Hamilton. 2003. Peach management programs impact beneficial fauna abundance and *Grapholita molesta* (Lepidoptera: Tortricidae) egg parasitism and predation. *Environ. Entomology* 32: 780-788.
- Baars, J.-R. 2003. Geographic range, impact, and parasitism of lepidopteran species associated with the invasive weed *Lantana camara* in South Africa. *Biological Control* 28: 293-301.
- Bagamaev, A. A. & R. A. Bagamaev. 2003. [Tortrix moths on grape vines]. *Zaschita i Karantin Rastemii* 5: 36. [In Russian]
- Banga, N., P. J. Albert, N. N. Kapoor & J. N. McNeil. 2003. Structure, distribution, and innervation of sensilla on the ovipositor of the spruce budworm, *Choristoneura fumiferana*. *Canadian Journal of Zoology* 81: 2032-2037.
- Bloem, S., J. E. Carpenter & J. H. Hofmeyr. 2003. Radiation biology and inherited sterility in false codling moth (Lepidoptera: Tortricidae). *Journal of Economic Entomology* 96: 1724-1731.
- Boivin, T., J. C. Bouvier, D. Beslay & B. Sauphanor. 2003. Phenological segregation of insecticide resistance alleles in codling moth *Cydia pomonella* (Lepidoptera: Tortricidae): a case study of ecological divergences associated with adaptive changes in populations. *Genetical Research (New York)* 81 (3): 169-177.
- Bostanian, N. J., C. Vincent, H. Goulet, L. Lesage, J. Lasnier, J. Bellemare & Y. Mauffette. 2003. The arthropod fauna of Quebec vineyards with particular reference to phytophagous arthropods. *Journal of Economic Entomology* 96: 1221-1229.
- Botero-Garces, N. & R. Issacs. 2003. Distribution of grape berry moth, *Endopiza viteana* (Lepidoptera: Tortricidae), in natural and cultivated habitats. *Environ. Entomology* 32: 1187-1195.
- Brown, J. W. 2003. Three new genera, two new species, and some rectifications in neotropical Euliini (Lepidoptera: Tortricidae). *Proceedings of the Entomological Society of Washington* 105: 630-640.
- Brown, J. W. 2003. An illustrated guide to the *Orthocomotis* Dognin (Tortricidae) of Costa Rica, with summaries of their spatial and temporal distribution. *Journal Lepid. Society* 57: 253-269.
- Brown, J. W. & D. Adamski. 2003. Systematics of *Anopinella* Powell (Lepidoptera: Tortricidae). *Zootaxa* 200: 1-94.
- Brown, J. W., S. E. Miller & M. Horak. 2003. Studies on New Guinea moths. 2. Description of a new species of *Xenothictis* Meyrick (Lepidoptera: Tortricidae: Archipini). *Proc. Entomol. Society of Washington* 105: 1043-1050.
- Brown, J. W. & K. Nishida. 2003. First record of larval endophagy in Euliini (Tortricidae: Euliini): A new species of *Seticosta* from Costa Rica. *Journal of the Lepidopterists' Society* 56: 113-120.
- Brown, J. W. & J. Razowski. 2003. Description of *Ptychocroca*, a new genus from Chile and Argentina, with comments on the *Bonagota* Razowski group of genera (Lepidoptera: Tortricidae). *Zootaxa* 303: 1-31.
- Brown, J. W. & J. Razowski. 2003. Review of *Inape* Razowski (Lepidoptera: Tortricidae: Euliini), with descriptions of five new species. *Acta Zoologica Cracoviensia* 46: 197-208.
- Byun, B.-K. 2003. Four species of the family Tortricidae (Lepidoptera) new to Korea. *Journal of Asia-Pacific Entomology* 6 (1): 3-6.
- Byun, B.-K., S.-C. Yan & C.-D. Li. 2003. Revision of tribe Archipini (Tortricidae: Tortricinae) in northeast China. *Journal of Forestry Research* 14 (2): 93-102.
- Byun, B.-K., S.-C. Yan & C.-D. Li. 2003. Notes on the genus *Eurydoxa* Filipjev (Lepidoptera: Tortricidae) in China. *Journal of Forestry Research* 14 (3): 210-212.
- Calvo, D. & J. M. Molina. 2003. Incidencia de *Cacoecimorpha pronubana* (Hubner, [1799]) (Lep., Tortricidae) sobre variedades de arandano americano (*Vaccinium* spp., Ericaceae) con bajos requerimientos de horas frio en Andalucia Occidental. *Boletin de Sanidad Vegetal Plagas* 29: 553-561.
- Coracini, M. D. A., M. Bengtsson, A. Reckziegel, A. E. Eiras, E. F. Vilela, P. Anderson, W. Francke & P. Witzgall. 2003. Behavioural effects of minor sex pheromone components in Brazilian apple leafroller *Bonagota cranaodes* (Lep., Tortricidae). *Journal of Applied Entomology* 127: 427-434.

- Cossentine, J. E., L. B. Jensen & E. K. Deglow. 2003. Strategy for orchard use of *Bacillus thuringiensis* while minimizing impacts on *Choristoneura rosaceana* parasitoids. *Entomol. Experimentalis et Applicata* 109: 205-210.
- Coyle, D. R., J. T. Nowak & C. J. Fettig. 2003. Irrigation and fertilization effects on Nantucket pine tip moth (Lepidoptera: Tortricidae) damage levels and pupal weight in an intensively-managed pine plantation. *J. Entomol. Science* 38: 621-630.
- Dhilepan, K. 2003. Seasonal variation in the effectiveness of the leaf-feeding beetle *Zygo-gramma bicolorata* (Coleoptera: Chrysomelidae) and stem-galling moth *Epiblema streuana* (Lepidoptera: Tortricidae) as biocontrol agents on the weed *Parthenium hysterophorus* (Asteraceae). *Bulletin of Entomological Research* 93: 393-401.
- Elsner, G. & J. Jaros. 2003. A new species of *Ceratoxanthia* Razowski, and distribution records of two species of *Aethes* Billberg from the Balkan Peninsula (Tortricidae: Cochylini). *Nota Lepidopterologica* 25 (2002): 221-225.
- Eveleigh, E. S., S. J. Pollock, H. Goulet & J. Huber. 2003. Identification of cocoons of *Apanteles* and *Dolichogenidea* (Hymenoptera: Braconidae) species attacking *Choristoneura fumiferana* (Lepidoptera: Tortricidae) and associated Microlepidoptera. *Canadian Entomologist* 135: 677-684.
- Evenden, M. L., L. E. Delury, G. J. R. Judd & J. H. Borden. 2003. Assessing the mating status of male obliquebanded leafroller *Choristoneura rosaceana* (Lepidoptera: Tortricidae) by dissection of male and female moths. *Annals of the Entomological Society of America* 96: 217-224.
- Follett, P. A., S. DeLuz, R. A. Lower & D. K. Price. 2003. Suitability of lychee fruits on and off the tree for *Cryptophlebia* spp. (Lepidoptera: Tortricidae). *Proceedings of the Hawaiian Entomological Society* 36: 89-94.
- Foster, S. P., M. Noll, S. Grugel & L. D. Charlet. 2003. A reinvestigation of the role of sunflower chemicals in host selection by female banded sunflower moth, *Cochylis hospes* (Walsingham) (Lepidoptera: Tortricidae). *Journal of the Kansas Entomological Society* 76: 387-396.
- Gonzalez, R. H. 2003. Las polillas de la fruta en Chile (Lepidoptera: Tortricidae, Pyralidae). *Univer. Chile, Facultad de Ciencias Agronomicas*.
- Groenen, F. & K. Larsen. 2003. *Cochylimorpha salnarida* sp. n. (Lepidoptera, Tortricidae), a new cochyliid moth from Spain. *Phegea* 31 (1): 11-14.
- Herbison-Evans, D. & S. Crossley. 2000-2003. Caterpillars: especially Australian ones. Web site: <http://www.linus.socs.uts.edu.au/~don/larvae/larvae.html>
- Huemer, P. 2003. *Rhyacionia hafneri* (Rebel, 1937) sp. rev., eine verkannte Wicklerart aus dem Mittelmeergebiet (Lepidoptera: Tortricidae). *Entomologische Zeitschrift (Stuttgart)* 113 (4): 98-101.
- Hughes, W. O. H., D. Gailey & J. J. Knapp. 2003. Host location by adult and larval codling moth and the potential for its disruption by the application of kairomones. *Entomologia Experimentalis et Applicata* 109: 147-153
- Itamies, J. M. Mutanen & P. Lankinen. 2003. Revision of the European *Aethes rubigana* complex with a description of genetically confirmed *Aethes kyrkii* sp. n. (Lepidoptera, Tortricidae). *Insect Systematics and Evolution* 34: 3-14.
- Jimenez-Perez, A., Q. Wang & N. Markwick. 2003. Remating behavior of *Cnephasia jactatana* Walker females (Lepidoptera: Tortricidae). *Journal of Insect Behavior* 16: 797-809.
- Jimbo, U. 2003. Records of three archipine species (Tortricidae, Tortricinae) little known from Japan. *Japan Heterocerists' Journal* 222: 417-422.
- Jimbo, U. & M. Nakatani. 2003. Wing pattern variations of *Clepsis pallidana* (Tortricidae, Tortricinae) in the eastern area of Hokkaido. *Japan Heterocerists' Journal* 222: 427-239.
- Jordon, Y., H. Morin & P. Dutilleul. 2003. Periodicity and synchronism of spruce budworm outbreaks in Quebec. *Canadian Journal of Forest Research* 33: 1947-1961.
- Kanga, L. H. B., D. J. Pree, J. L. Van Lier & G. M. Walker. 2003. Management of insecticide resistance in Oriental fruit moth (*Grapholita molesta*; Lepidoptera: Tortricidae) populations from Ontario. *Pest Management Science* 59: 921-927.

- Karisch, T. 2003. Die Sammlungen des Museums für Naturkunde und Vorgeschichte Dessau. *Naturw. Beiträge Museum Dessau* 15: 121-129.
- Karisch, T. 2003. Zur Schmetterlingsfauna von St. Helena 2. Teil: Kleinschmetterlinge (1) (Insecta: Lepidoptera: Tortricidae, Glyphipterigidae, Cosmopterigidae, Plutellidae, Pterophoridae). *Linzer Biol. Beiträge* 35: 1081-1085.
- Kleespies, R. G., C. R. Vossbrinck, M. Lange & J. A. Jehle. 2003. Morphological and molecular investigations of a microsporidium infecting the European grape moth *Lobesia botrana* Den. et Schiff., and its taxonomic determination as *Cystosporogenes legeri* nov. comb. *Journal of Invertebrate Pathology* 83 (3): 240-248.
- Komai, F. & Y. Nasu. 2003. Four species of Olethreutinae (Lepidoptera: Tortricidae) associated with viviparous seedlings of the mangrove Rhizophoraceae in the Ryukyu Islands, Japan. *Invertebrate Systematics* 17: 75-87.
- Mansour, M. 2003. Gamma irradiation as a quarantine treatment for apples infected by codling moth (Lep., Tortricidae). *Journal of Economic Entomology* 96: 137-142.
- Nakagawa, H., T. Itioka, K. Momose, T. Yumoto, F. Komai, K. Morimoto, B. H. Jordal, M. Kato, H. Kaliang, A. A. Hamid, T. Inoue & T. Naskashizuka. 2003. Resource use of insect seed predators during general flowering and seeding events in a Bornean dipterocarp rain forest. *Bulletin of Entomological Research* 93: 455-466.
- Natale, D., L. Mattiacci, A. Hern, E. Pasqualini & S. Dorn. 2003. Response of female *Cydia molesta* (Lepidoptera: Tortricidae) to plant derived volatiles. *Bull. Entomol. Research* 93: 335-342.
- Nealis, V. G., S. Magnussen & A. A. Hopkin. 2003. A lagged, density-dependent relationship between jack pine budworm *Choristoneura pinus pinus* and its host tree *Pinus banksiana*. *Ecological Entomology* 28: 183-192.
- Nealis, V. G. & R. Turnquist. 2003. Predicting defoliation by *Choristoneura biennis* (Lepidoptera: Tortricidae). *Canadian Entomologist* 135: 903-907.
- Pringle, K. L., D. K. Eyles & L. Brown. 2003. Trends in codling moth activity in apple orchards under mating disruption using pheromones in the Elgin area, Western Cape Province, South Africa. *African Entomology* 11: 65-75.
- Razowski, J. 2003. Tortricidae (Lepidoptera) from Vietnam in the collection of the Berlin Museum. 1. Tortricini. *Polskie Pismo Ent.* 72: 161-175.
- Razowski, J. 2003. Reassessment of forewing pattern elements in Tortricidae (Lepidoptera). *Acta Zoologica Cracoviensia* 46 (3): 269-275.
- Razowski, J. 2003. Tortricidae of Europe. Volume 2. Olethreutinae. Frantisek Slamka, Bratislava. 304 pp.
- Razowski, J. 2003. *Proathorybia* Razowski, 1999 and its allies, with description of two new taxa (Lepidoptera: Tortricidae). *Polskie Pismo Entomologiczne* 72: 219-222.
- Razowski, J. & V. O. Becker. 2003. Distributional data on Neotropical Tortricini with description of two new species (Lepidoptera: Tortricidae). *SHILAP Revista Lepidopterologia* 31: 49-52.
- Razowski, J. & V. O. Becker. 2003. Descriptions and notes on Neotropical *Clepsis* Guenee, 1845 (Lepidoptera: Tortricidae). *SHILAP Revista Lepidopterologia* 31: 61-64.
- Razowski, J. & V. O. Becker. 2003. Three new genera of Neotropical Cochyliini (Lepidoptera: Tortricidae) and their species. *Polskie Pismo Entomologiczne* 72: 153-160.
- Razowski, J. & V. O. Becker. 2003. Descriptions of three South American genera of Euliini and their five species (Lepidoptera Tortricidae). *Bollettino di Zoologia agraria e di Bachicoltura* (2) 35 (1): 23-29.
- Razowski, J. & R. H. Gonzalez. 2003. Descriptions of two Chilean Euliini species (Lepidoptera: Tortricidae). *SHILAP Revista Lepidopterologia* 31: 61-64.
- Razowski, J. & V. Pelz. 2003. Descriptions of *Netechmodes* gen. n. and two species of *Netechma* Razowski, 1991 from Ecuador (Lepidoptera: Tortricidae). *Bollettino di Zoologia agraria e di Bachicoltura* (2) 35 (1): 17-21.

- Razowski, J. & V. Pelz. 2003. Tortricidae collected in Ecuador in the years 1996-1999: Euliini (Lepidoptera). *Nachr. Entomol. Ver. Apollo N.F.* 24 (4): 189-207.
- Razowski, J. & Z. Tokar. 2003. *Dichrorampha pastoralisi* Razowski & Tokar, sp. n., a new species from southern Europe (Lepidoptera: Tortricidae: Olethreutinae). *SHILAP Revista Lepidopterologia* 31: 221-223.
- Smith, L. & J. M. Story. 2003. Plant size preference of *Agapeta zoegana* L. (Lepidoptera: Tortricidae), a root-feeding biological control agent of spotted knapweed. *Biological Control* 28: 270-278.
- Spitzer, K., J. Jaros & A. Bezdek. 2003. Leaf-spinning moths (Lepidoptera) feeding on *Vaccinium uliginosum* L. along an ecological gradient of central European peat bogs. *Ent. Fennica* 14: 46-52.
- Stelinski, L. L., J. R. Miller, N. E. Ressa & L. J. Gut. 2003. Increased EAG responses of tortricid moths after prolonged exposure to plant volatiles: Evidence for octopamine-mediated sensitization. *Journal of Insect Physiology* 49: 845-856.
- Sutherland, P. W., M. O. Harris & N. P. Markwick. 2003. Effects of starvation and the *Bacillus thuringiensis* endotoxin CryIAC on the midgut cells, feeding behavior, and growth of lightbrown apple moth larvae. *Annals of the Entomological Society of America* 96: 250-264.
- Syed, Z., P. M. Guerin & W. Baltensweiler. 2003. Antennal responses of the two host races of the larch bud moth, *Zeiraphera diniana*, to larch and cembran pine volatiles. *Journal of Chemical Ecology* 29: 1691-1708.
- Tanigoshi, L. K. & P. Stary. 2003. Distribution, habitats and host plants of the cherry bark tortrix, *Enarmonia formosana* (Scopoli) in the Czech Republic (Lepidoptera, Tortricidae). *Anzeiger für Schadlingskunde (Journal of Pest Science)* 76: 41-43.
- Tanigoshi, L. K. & P. Stary. 2003. Hymenopterous parasitoids of the cherry bark tortrix, *Enarmonia formosana* (Scopoli) in central-east Europe (Hymenoptera: Ichneumonidae; Lepidoptera, Tortricidae). *Anzeiger für Schadlingskunde (Journal of Pest Science)* 76: 100-102.
- Tobin, P. C., S. Nagarkatti & M. C. Saunders. 2003. Phenology of grape berry moth (Lepidoptera: Tortricidae) in cultivated grape at select geographic locations. *Environ. Entomol.* 32: 340-346.
- Trematerra, P. 2003. *Dichrorampha mediterraneana* sp. n. a new species of Lepidoptera Tortricidae from Italy. *Boll. Mus. Reg. Sci. Nat. Torino* (in press).
- Trematerra, P. 2003. Catalogue of Lepidoptera Tortricidae of the Italian fauna: geonomy, Italian distribution, biological notes, identification. *Bollettino di Zoologia Agraria e di Bachicoltura* (2) 35 (supplement): 1-270. [In Italian]
- Triselva, T. A., A. F. Safonkin & E. E. Kryuchkova. 2003. Comparative analysis of antennae in the apple surface eating tortricid *Archips podana* and some other Tortricidae (Lepidoptera) species. *Zoologicheskiy Zhurnal (Moscow)* 82 (12): 1454-1461.
- Wang, X., H. Li & S. Wang. 2003. Study on the genus *Clepsis* Guenee, 1845 from China (Tortricidae). *Nota Lepidopterologica* 6: 47-57.
- Wearing, C. H., K. Calhoun, B. Atfield, R. R. Marshall & G. F. McLaren. 2003. Screening for resistance in apple cultivars to lightbrown apple moth, *Epiphyas postvittana*, and greenheaded leafroller, *Planotortrix octo*, and its relationship to field damage. *Entomologia Experimentalis et Applicata* 109: 39-53.
- Wright, D. J. & C. V. Covell, Jr. 2003. A new species of *Epiblema* (Tortricidae) formerly misidentified as *E. walsinghami* (Kearfott) and *E. infelix* Heinrich. *Journal of the Lepidopterists' Society* 57: 230-234.

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