



On the 6th of May, 1966 Dr. Nikolaï (Nicholas) Sergeevich Obraztsov died unexpectedly of heart failure in Sea Cliff, Long Island, near New York, at an age of 59. He was the leading specialist of the Tortricoid Microlepidoptera.

Nikolaï S. Obraztsov was born on 18 August 1906 in Rostov on the Don, Russia, second son of Dr. Sergei Nikolaëvich Obraztsov, physician and later university professor of pathological anatomy, and of Ludmila Nikolaëvna Obraztsova. He lived in Rostov until 1922, where he finished the classical gymnasium. In that year he moved to Nikolaev also in southern Russia, where he studied natural history, science, chemistry, and mathematics at the Institute for Pedagogy, a course which he finished in 1934. In 1926 he was appointed lector in Zoology at Nikolaev. In 1934 he moved to Kiev, where he married Vera Nikolaëvna Obraztsova. From this marriage a son and a daughter were born. In Kiev, Obraztsov was lector of biology at the Medical Institute of the University until 1937, and assistant at the chair of Zoogeography of the University until 1938. From 1937 through 1940 he also was keeper of Lepidoptera at the Zoological Museum of the University.

In 1940 he and his family were deported by the German army to Germany. In 1944 Obraztsov was appointed Lepidopterist at the Zoological Institute of the University of Königsberg. From 1946 until 1951 he worked at the Zoologische Sammlung des Bayerischen Staates at Munich. In that year he received the degree of Ph.D. at the Faculty of Natural Sciences of the University of Munich.

In 1951 the Obraztsov family emigrated to the United States and took residence in Sea Cliff, New York. In New York Obraztsov became Research Associate of the American Museum of Natural History and of the United States National Museum at Washington, D. C., with research grants from the East European Foundation of the N.S.F. The subjects of his research were revisions of the family Ctenuchidae of the World and of the family Tortricidae, first of the Palaearctic, later of the Nearctic and Neotropical regions.

Dr. Obraztsov died suddenly of coronary thrombosis after a few days of illness. He died in harness: with unsorted colour slides of type specimens still piled on his table and unfinished manuscripts neatly put away in a filing cabinet. It is hoped that parts of his unfinished work can be completed through the efforts of his colleagues, A. Diakonoff and J. A. Powell.

From his early years Nicholas Obraztsov was a serious and eager boy and showed great interest and love for living things in nature; soon he started observing, collecting and studying insects, especially butterflies. Through his school years he was a zealous pupil and a great reader. He collected considerably around Kiev and also made collecting expeditions through southern Russia as far as the Caucasus. Later, however, he gave up all collecting, and dedicated himself entirely to taxonomy. He started correspondence with many Russian lepidopterists. One of them, Dr. Leo A. Sheluzhko, of Kiev, who was the owner of the greatest private collection of Lepidoptera in U.S.S.R. at the time, had a great influence upon the scientific development of Obraztsov. Sheluzhko soon invited him to see his famous collection. Obraztsov came and lost himself entirely in Lepidopterology, resolved to move to Kiev and to dedicate himself to this branch of study. Later he left other groups of Lepidoptera and concentrated on the Tortricoidea.

Besides his local south Russian contacts, Obraztsov visited the Zoological Institute of the Academy of Sciences at Leningrad several times and there met the leading Russian Lepidopterists: N. J. Kusnezov, A. M. Djakonov, and N. N. Filipjev. His private collection of Lepidoptera was donated to the Zoological Museum of the Kiev University where also finally went the great Sheluzhko collection. Obraztsov's notes and card

indices were lost during the World War II and had to be remade after the war.

Obraztsov's scientific importance is considerable, in spite of relatively limited time he was able to devote himself fully to the study of the systematics and taxonomy of the Tortricoidea; and in spite of the handicaps and hardships of life in post-war Germany, where he laid the foundation for his great card catalogue.

The systematics of this group of Microlepidoptera had become a complete chaos, due to lack of application of genitalic studies and to lack of coordination of the work of students in continental Europe, England, and North America. The great backlog of knowledge of an enormous body of literature, chiefly on the Palaearctic fauna, over a long period of time, resulted in serious lack of trustworthy and comprehensive literature surveys which would make the knowledge accessible. During many years nobody seemed to have enough courage, insight, time, and diligence to unravel this mountainous knot. Then Obraztsov appeared and undertook this endeavour: of lepidopterological "book keeping." He quietly and steadily devoted every free hour of his time for many years to studying the literature from Linnean times on, a project which continued until shortly before his death. He not only remade his lost card indices of genera and species but extended his Catalogue to an immense scope, including the Tortricoidea of the whole world and so became the recognized leading specialist of the group.

The card index, arranged alphabetically, contains cards of genera, species, and lower taxa. Besides, many cross-reference cards, pertaining to all ever used binominal combinations, and finally, an index catalogue of all separate names. The great work comprises of about 30,000 typed cards.

Drawing from this deep well of information Obraztsov could readjust genera and species, detect synonymies, sink and revive names. Students of Tortricidae, especially of the Palaearctic fauna, which has been the most confused, depended upon his word for taxonomic, systematic, and nomenclatory information.

The chief result of the Catalogue was the publication of the series "Die Gattungen der Palaearktischen Tortricidae," which appeared in parts in the *Tijdschrift voor Entomologie* from 1954 onwards. Unfortunately this extensive revision has not been completed. The subfamilies Tortricinae and Sparganothidinae have been finished, but of the Olethreutinae only the first tribe, the Laspeyresiini has been completed, while the Eucosmini is in the progress of publication. Manuscripts of several additional parts have been found after his death and will be pub-

lished, as far as possible. Fortunately we know his concept also of the Eucosmini and that of the Olethreutini, not only from additional stray papers but chiefly from the work of H. J. Hannemann, *Die Wickler*, in Dahl's *Tierwelt Deutschlands*: Obraztsov provided the taxonomic base for this important publication. The Catalogue of the Tortricoidea thus forms a Key to Dr. Obraztsov's great Scientific success. It is the plan of the American Museum of Natural History, where the catalogue will be deposited, to try and publish it, in order to make it widely available to lepidopterists.

After his basic studies of the Palaearctic fauna Obraztsov took up the Nearctic Tortricidae, the chief subject of the N.S.F. grants, and unavoidably was also very much attracted by the fascinating Neotropical fauna. Only recently he discovered the presence of the subfamily Chlidanotinae in South America, new for that fauna.

Not in possession of own collection and being dependent on the materials which he continuously borrowed from many museums, he searched for a means to fix received information and to form an archive for reference. So he started with a second card index, that of negatives and black and white prints of the wings and the genitalia.

Parallel to this he recently started a third catalogue, that of colour slides of type specimens of the Tortricoidea, which he photographed during visits to museums in the U. S. and abroad. Probably this would have become his most important tool. Modern 35 mm colour film shows colour and every detail of the insect with so great perfection, that studying them with a low power microscope almost equals investigating the original type specimen. Here was a chance to have at one's disposal a complete collection of replica of the types scattered over many museums and collections. Obraztsov was so enthusiastic about this project that he made over 1,000 colour slides during his last two months stay at the British Museum in London.

Along with these studies he had large correspondence and determined material for many colleagues and collectors, chiefly in Europe and Japan, but lately also in the United States.

Obraztsov's diligence and working capacity were amazing. He worked unobtrusively most of the time; he worked Sundays and during his leave. But he was certainly not a monomaniac, on the contrary: remarkably, he could also find time for reading of an amazing amount of books on most diverse subjects; his house is overflowing with them. But his chief hobby was music: listening to it and collecting it on records and tapes. He also was a good technical photographer, with a well-equipped darkroom, and an enthusiastic amateur movie camera operator. He had a talent for lan-

guages and published alternately in English and German.

At home Dr. Obraztsov was a kind, attentive, and considerate man, quiet and equanimous, always ready to help everyone with deed and advice. He had a great number of friends, valued these friendships highly and much enjoyed inviting and entertaining his friends. He was also a thoughtful and devoted head of the family. But his scientific work doubtless was the most important part of his life: he chiefly thought of it, lived for it, and was contented and happy so long as he could indulge in it.

With his death the great machinery of Obraztsov's work comes now to a stop. As so many colleagues were dependent on his advice, many will keenly miss him. And those who had the privilege to know him close and intimately feel the loss the more deeply, with bewilderment and sadness. For nobody had ever expected that he would leave the world so suddenly instead of dedicating many more fruitful years to his beloved Tortricidae.

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BIBLIOGRAPHY OF

NICHOLAS S. OBRAZTSOV

- 1926. 1. J. H. Fabre (A biographical note). Tshelovek i Priroda, 6 (4): 65-68, 1 fig. Moscow (in Russian).
- 1928. 2. On the distribution and biology of Gibbium boieldieui Levr. Revue Russe d'Ent., 22: 134–136, 1 fig. Leningrad (in Russian).
 - 3. On the food plants of some caterpillars. Zeitschr. wissensch. Insektenbiol., 23: 203. Berlin (in German).
 - 4. Notes on the biology of some beetles. *Ibid.*, 24: 256–257 (in German).
- 1929. 5. Contributions to the knowledge of the fauna of the Lepidoptera of the Dnieper-Bug Steppe. Acad. Sci. Ukraine Mem. Phys.-Math., 13 (1): 35–40, 1 map. Kiev (in German; summary in Ukrainian).
- 1930. 6. Contribution to the biology of *Loxostege sticticalis* L. Zeitschr. wissensch. Insektenbiol., 25: 13–18, 6 figs. Berlin (in German).
 - 7. Supplementary notes on the biology of Loxostege sticticalis L. Ibid., 25: 129–130 (in German).
 - 8. The fauna of the Lepidoptera of the Dnieper-Bug Steppe. Jahrb. Nikolaever Instit. Volksbildung, 2 (1928): 81–98. Nikolaev, Ukraine (in Ukrainian).
- 9. Acidalia orientalis Alph. bona species. Intern. Ent. Zeitschr., 25: 235–238, 5 figs. Guben (in German).
 - 10. A new method for preparation of dry Lepidoptera. Ent. Anzeiger, 11: 401–403. Vienna (in German).
- 1933. 11. The larva of *Bradyrrhoa gilveolella* Tr. Mitt. Münchner Ent. Gesell., 23: 1–7, 14 figs. Munich (in German).
 - 12. Colias hyale L. f. meridionalis Krul. Polskie Pismo Ent., 12: 262–267. Krakow (in German; summary in Polish).
- 1934. 13. On the variations of *Lythria purpuraria* L. *Ibid.*, 13: 98–104, 4 figs. (in German, summary in Polish).

- 14. Abstract: Holik, O. On the hybridization of different species of *Zygaena*. Deutsche Ent. Zeitschr. 'Iris,' vol. 47, pp. 7–31. 1933. Referativnyi Biologicheskyi Zhurnal, Inostrannaia Literatura, 2: 186. Moskow (in Russian).
- 15. Lycaena inhonora Jach. as an independent species. Deutsche Ent. Zeitschr.: 219–224, 3 figs. Berlin (in German)
- 16. Two new seasonal forms of Lepidoptera from South Ukraine. Zeitschr. Oesterreich. Ent. Ver., 19: 72–74. Vienna (in German).
- 1935. 17. On the ecology of some Lepidoptera larvae. Ent. Rundschau, 52: 1–2. Stuttgart (in German).
 - Notes on Lepidoptera. Ent. Zeitschr., 49: 54–55. Frankfurt/M. (in German).
 - 19. Lycaena (Aricia) allous Hb. and its Eastern Subspecies. Folia Zool. & Hydrobiol., 8: 141-150, 3 figs. Riga (in German).
 - Collecting of nocturnal moths in the city of Nikolaev, Ukraine. Trav. Mus. Zool., 15: 141–161. Kiev (in Ukrainian; summaries in Russian and German).
 - 21. Contribution to the fauna of the Lepidoptera of the Dnieper-Bug Steppe. Lambillionea, 35: 223–229. Bruxelles (in French).
 - 22. A new subspecies of *Amata marjana* Stauder. Ent. Rundschau, 52: 221–223. 6 figs. Stuttgart (in German).
 - 23. An essay of unification of the nomenclature of aberrations in the genus *Amata F.* (*Syntomis O.*). Ent. Anzeiger, 15: 261–264, 289–291; 16: 38–39, 47–48. Vienna (in German).
- 1936. 24. On a subspecies of Amata phegea L. Ent. Rundschau, 53: 184–187, 199–203, 254–256, 5 figs., 1 pl. Stuttgart (in German).
 - 25. What is Amata herthula Stauder? Ibid., 53: 304-308 (in German).
 - Some new forms of Palearctic Rhopalocera. Zeitschr. Oesterreich. Ent. Ver., 21: 45–48. Vienna (in German).
 - 27. New data on *Lycaena* (*Aricia*) allous Hb. Foha Zool. & Hydrobiol., 9: 58-60, 1 fig. Riga (in German).
 - 28. Contribution to the fauna of the Lepidoptera of the Park of Vessyolaya Bokovenyka, Ukraine. *Ibid.*, 9: 29–57 (in German).
 - 29. Some new subspecies of *Lycaena* (*Lysandra*) thersites Cant. Lambillionea, 36: 11–18. Bruxelles (in French).
 - 30. Some new forms of Lythria Hb. Ibid., 36: 98-102 (in French).
 - 31. Some new forms of Lepidoptera. Festschrift zum 60. Geburtstage von Prof. Dr. E. Strand, 1: 637–642. Riga (in German).
 - 32. On the geographic variation of *Aphantopus hyperanthus* L. *Ibid.*, 2: 242–245 (in German).
 - 33. Contribution to the fauna of the Lepidoptera of the South Transdnieper Province. *Ibid.*, 2: 229–242 (in German).
- 1937. 34. On the geographic variation of *Amata nigricornis* Alph. Ent. Rundschau, 54: 449–452, 462–466, 14 figs. Stuttgart (in German).
 - 35. A new Tortricid species from South Ukraine. Lambillionea, 37: 74–79, 5 figs. Bruxelles (in French).
- 1939. 36. Rhopalocera Ucrainica (in collaboration with L. Sheljuzhko). A supplement to the book—Jachontov, A.: Our Butterflies. Kiev, pp. 155–175 (in Ukrainian).
- 1941. 37. Specific differentiation in the *pheguea* group of the subgenus *Syntomis*O. of the European fauna. Acta Mus. Zool. Univ. Kiev, 1 (1939): 103–
 163, 12 figs., 2 pl. Kiev (in Ukrainian; summaries in Russian and German).
 - 38. Catalogus generis *Dysauxes* Hb. faunae palaearcticae. *Ibid.*, 1: 165–167 (in Latin).
 - 39. The systematic position of Euxanthis straminea wiatkensis Krul. Ibid.,

- 1: 293-296 (in Ukrainian; summaries in Russian and German).
- 40. Talis quercella roburella Krul. Ibid., 1: 297 (in Ukrainian; summaries in Russian and German).
- 41. Endotrichia flammealis montanalis Krul. Ibid., 1: 299–300 (in Ukrainian, Russian, and German).
- Contribution to the fauna of the Amphibia and Reptilia of the vicinity of Nikolaev. *Ibid.*, 1: 323–325 (in Ukrainian; summaries in Russian and German).
- 43. Expedition to the Dendrologic Park of Vessyolaya Bokovenyka. *Ibid.*, 1: 329 (in Russian), 374 (in German).
- 44. Expedition to Akmechetka. *Ibid.*, 1: 352 (in Russian), 377 (in German).
- 45. Expedition to the Kiev-Polessye. *Ibid.*, 1: 353 (in Russian), 378 (in German).
- 46. Supplements to the fauna of the Ukraine. *In* Raykov, B. & M. Rimski-Korsakov: Zoological excursions. Kiev (in Ukrainian).
- 1942. 47. *Hylophila prasinana* L. m. *fiorii* Cost. and ssp. *japonica* Warr. Iris, 56: 153–157. Dresden (in German).
 - 48. Djakonovia gen. nov., a new Tortricid genus. Ibid., 56: 157-158 (in German).
 - A new Phaloniid genus and species. Zeitschr. Wiener Ent. Gesell., 28: 43–45, 2 figs. Vienna (in German).
 - New data about Gelastocera species. Ibid., 28: 78-81, 1 pl. (in German).
 - 51. Lepidoptera of the Pamir Expedition of the Zoological Museum of the University of Kiev. III. Tortricidae. Mitt. Münchner Ent. Gesell., 33: 85–108, 14 figs., 1 pl. Munich (in German).
- 1944. 52. Celypha flavipalpana HS. bona species. Zeitscher. Wiener Ent. Gesell., 29: 310–313, 2 figs. Vienna (in German).
 - 53. On the Phaloniid genus *Propira* Durr. and some other related genera. Iris, 57 (1943): 66–73, 3 figs. Dresden (in German).
 - 54. Djakonovia scutellana, a new Tortricid species from Dzharkent. Ibid., 57 (1943): 73-76, 1 fig. (in German).
- 1946. 55. A provisional systematic revision of the European genera of the Eucosmini Zeitschr. Wiener Ent. Gesell., 30 (1945): 20–46, 4 figs. Vienna (in German).
- 1949. 56. A critical, systematic note on the genera *Olethreutes* Hb. and *Exartema* Clem. Ent. Zeitschr., 59: 45–48. Stuttgart (in German).
 - 57. Three new species of *Ceryx* Wallgr. from Java and Sumatra. Tijdschr. Ent., 90 (1947): 57–60, 6 figs. Amsterdam (in English).
 - 58. Contribution to a revision of the Palearctic genera of the Tortricidae. I. Classification of the subfamily Tortricidae and the tribe Ceraciini. Entomon, 1: 200–206, 3 figs. Munich (in German).
 - 59. Some new or little known species and forms of the Tortricidae. Mitt. Münchner Ent. Ges., 35–39 (1945–1949): 198–210, 6 figs. Munich (in German).
 - Inconstancy of the cornuti number in *Peronea hastiana* L. *Ibid.*, 35–39: 211–213, 1 fig. (in German).
 - 61. On the arabescana (Ev.) group of the genus Pseudeucosma Obr. Ibid., 35–39: 213–224, 7 figs. (in German).
 - 62. A new *Peronea* species from North Syria. *Ibid.*, 35–39: 224–226, 2 figs. (in German).
 - 63. Amata (Syntomis) damarensis Grünb., an independent species. Bull. Soc. Fuad I° Ent., 33: 27–29, 2 figs. Cairo (in German).
 - 64. On the variation of Peronea hippophäeana Heyd. Revue Franc. Lépidop-

- térologie, 12: 88-93, (1950) 224. Paris (in French).
- 1950. 65. Some new and little known Benidae. Ent. Zeitschr. 60: 61–64, 71–72. Stuttgart (in German).
 - 66. On the correct name of the family Phaloniidae. Ent. News, 61: 198. Philadelphia, Pa. (in English).
 - 67. New data on *Pseudeucosma tibetana* (Car.). Mitt. Münchner Ent. Gesell., 40: 243–244, 1 fig. Munich (in German).
 - 68. Some new and little known Mediterranean Tortricidae. Eos, 26: 299–319, 14 figs. Madrid (in German).
- 1951. 69. Two new Palearctic genera of the tribe Laspeyresiini. Tijdschr. Ent., 93 (1950): 99–100, 2 figs. Amsterdam (in English).
 - 70. Pammene (Hemerosia) tomiana (Z.) and some other related species. *Ibid.*, 94: 321–326, 2 figs. (in German).
 - 71. Notes on the genus Aterpia Gn. (= Esia Heinr.). Ent. News, 62: 276–278. Philadelphia, Pa. (in English).
- 1952. 72. Laspeyresia interruptana (HS.) as an independent species. Ent. Tidskr., 73: 33–37, 5 figs. Stockholm (in German).
 - 73. On some Palearctic Aethes species. Ent. Zeitschr., 61: 157–181, 7 figs. Stuttgart (in German).
 - 74. A little known and three new species of the Palearctic Tortricidae. Zeitschr. Lepidopterologie, 2: 37–43, 6 figs. Krefeld (in German).
 - 75. Thiodia Hb. as not a North American genus. Ent. News, 63: 145–149. Philadelphia, Pa. (in English).
 - On the genera Gypsonomoides Obr. and Hendecaneura Wlsm. Bull. & Ann. Soc. Ent. Belgique, 88: 245–251, 1 fig. Bruxelles (in French).
 - 77. Two new *Eriopsela* species from Allgäu. Nachrichtenblatt Bayrisch. Ent., 1: 93–96, 1 fig. Munich (in German).
 - Revision of the species of the moldavica-bombycalis group of the genus Synaphe. Mitt. Münchner Ent. Gesell., 42: 87–110. 10 figs., 1 pl. Munich (in German).
 - Epiblema scutulana (Schiff.). Tijdschr. Ent., 95: 323–330, 4 figs. Amsterdam (in German).
 - 80. Some new Palearctic species of the Eucosmini. Zeitschr. Wiener Ent. Gesell., 37: 122–129, 5 figs. Vienna (in German).
- 1953. 81. A new species of *Hyalaethea* Butler and a key to the species of the genus. Amer. Mus. Novitates, No. 1630, 3 pp. New York (in English).
 - Classification of Holarctic species of the genus Lobesia Guenée, with description of Paralobesia gen. nov. Tijdschr. Ent., 96: 85-94, 5 figs. Amsterdam (in English).
 - 83. Systematic revision of and notes on Palearctic *Dichrorampha* species. Mitt. Münchner Ent. Gesell., 43: 10–101, 50 figs Munich (in German).
 - 84. Revision of Palearctic *Nycteola* species, and *Erschoviella* gen. nov. Eos, 29: 143–172, 12 figs. Madrid (in German).
 - 85. Review: "Microleptidoptera of New Guinea. Part I. By A. Diakonoff." Lepid. News, 7: 128. New Haven, Conn. (in English).
- 1954. 86. Review: "Microlepidoptera of New Guinea. Part II. By A. Diakonoff." *Ibid.*, 8: 50 (in English).
 - 87. Notes on some species of the *Amata* (*Syntomis*) cymatilis group from the Philippine Islands, with description of a new species. Jour. Washington Acad. Sci., 44: 221–227, 12 figs. Washington, D. C. (in English).
 - 88. Nomenclature of the genera known as *Schrankia HS.*, *Hypenodes Gn.* (Phalaenidae), *Lythria Hb.* (Geometridae), and *Cledeobia Stph.* (Pyralididae). Nachrichtenblatt Bayer. Ent., 3: 81–86. Munich (in German).
 - 89. The genera of the Palearctic Tortricidae. Part I. General classification

- of the family, and the subfamilies Tortricinae and Sparganothinae. Tijdschr. Ent., 97: 141–231, figs. 1–248; *ibid.*, 98: 147–228, figs. 249–366 (1955); *ibid.*, 99: 107–154 (1956); *ibid.*, 100: 309–347 (1957). Amsterdam (in German).
- 90. Two new species of the *Amata tenuis* group. Bull. & Ann. Soc. Ent. Belgique, 90: 227–232, 3 figs. Bruxelles (in English).
- 91. On the nomenclature of *Crambus craterellus* auct. and *Cr. cassentiniellus* Z. Zeitschr. Wiener Ent. Gesell., 39: 254–257. Vienna (in German).
- 92. Notes on *Eressa confinis* and allied species, with descriptions of a new species and a new subspecies. Lepid. News, 8: 135–139, 3 figs. New Haven, Conn. (in English).
- 93. Some theoretical problems of contemporary Soviet zoology. Jour. Inst. Study History & Culture of the USSR, 6 (13): 34–62 (in Russian), 181–182 (summary in English), 189–190 (summary in German), 198–199 (summary in French). Munich, W. Germany.
- 1955. 94. Species of the Amata (Syntomis) pfeifferae group. Psyche, 62: 29–34, 4 figs. Cambridge, Mass. (in English).
- 1956. 95. Hemimene immaculata Danil., a preoccupied name. Ent. News, 67, p. 139. Philadelphia, Pa. (in English).
 - 96. Cochylidia gen. nov., a new Phaloniid genus; with description of a new species from Germany. Mitt. Münchner Ent. Gesell., 46: 14–20, 12 figs. Munich (in German).
- 1957. 97. Some new species of *Ceryx* Wallengren. Tijdschr. Ent., 100: 67–71. Amsterdam (in English).
 - 98. Some considerations about an abdominal organ in certain tortricid moths. Lepid. News, 10 (1956): 153–156, 1 fig. New Haven, Conn. (in English).
 - English).
 99. Review: "Microlepidoptera of New Guinea. Parts III, IV, and V. By A. Diakonoff." *Ibid.*, 10: 176 (in English).
 - 100. Review: "Bagworms. By I. V. Kozhantshikov." *Ibid.*, 10: 177–178 (in English).
 - 101. The Chinese *Caeneressa* species. Bull. Mus. Compar. Zool. Harvard College, 116: 389-438, 12 figs., 4 pls. Cambridge, Mass. (in English).
- 1958. 102. Review: "Bestimmungstabellen der Blattminen von Europa." By E. M. Hering. Lepid. News, 11 (1957): 177–178. New Haven, Conn. (in English).
 - 103. Review: "Microlepidoptera Venezolana." By H. G. Amsel. *Ibid.*, 12: 55 (in English).
 - 104. Descriptions of two genera of the family Phaloniidae (in collaboration with B. Swatschek). In Swatschek, B., Die Larvalsystematik der Wickler. Abhandlungen zur Larvalsystematik der Insekten, No. 3: 232–233. Berlin, Germany (in German).
 - 105. The genera of the Palearctic Tortricidae. II. Subfamily Olethreutinae. Tijdschr. Ent., 101: 229–261, figs. 1–24. Amsterdam (in German).
- 1959. 106. On the systematic position of Tortrix nigrivelata. Amer. Mus. Novitates, No. 1959, 6 pp., 5 figs. New York (in English).
 - 107. Note of the North American Aphelia species. *Ibia'.*, No. 1964, 9 pp., 15 figs. (in English).
 - 108. Characters separating Archips rileyanus and cerasivoranus as two species. Ent. News, 70: 263–267. Philadelphia (in English).
 - 109. The genera of the Palearctic Tortricidae. II. Subfamily Olethreutinae. Part 2. Tijdschr. Ent., 102: 175–216, figs. 25–63, pls. 23–26. Amsterdam (in German).
- 1960. 110. On the systematic position of two genera erroneously placed in the family Tortricidae. Jour. New York Ent. Soc., 68: 21–26, figs. 1–2, pl. I.

- New York (in English).
- 111. Contribution to the classification of the Central European Olethreutinae. Beit. Ent., 10: 459–485, 8 figs. Berlin (in German).
- The genera of the Palearctic Tortricidae. II. Subfamily Olethreutinae. Part 3. Tijdschr. Ent., 103: 111–143, figs. 64–106, pls. 11–13. Amsterdam (in German).
- 1961. 113. Data on *Decodes*, a new North American genus, with descriptions of new species [with J. A. Powell]. Jour. Lepid. Soc., 14: 112–126, 14 figs.
 - species [with J. A. Powell]. Jour. Lepid. Soc., 14: 112–126, 14 figs. 114. The genera of the Palearctic Tortricidae. II. Subfamily Olethreutinae. Part 4. Tijdschr. Ent., 104: 51–70, figs. 107–126.
 - 115. Descriptions of and notes on North and Central American species of Argyrotaenia, with the description of a new genus. Amer. Mus. Novitates, No. 2048, 42 pp., 84 figs.
 - The genera of the Palearctic Tortricidae. III. Addenda and corrigenda. Tijdschr. Ent., 104: 231–240.
 - Osthelderia amardiana, new genus and species of the tribe Laspeyresiini.
 Mitteil. Münchner Ent. Gesell., 51: 150–153, pl. 12, figs. 3–4.
 - Two new and two insufficiently known Palearctic Argyroploce species. Ibid., 51: 153-158, pls. 12-15.
- 1962. 119. Review: "The Genitalia of the Group Tortricidae of the British Islands." By F. N. Pierce and J. W. Metcalfe. Jour. Lepid. Soc., 15: 127–128.
 - Review: "Results of the German Expedition 1956 to Afghanistan." Ibid., 15: 128–129.
 - 121. Anopina, a new genus of the Cnephasiini from the New World. Amer. Mus. Novitates, No. 2082, 39 pp., 71 figs.
 - New species and subspecies of North American Archipini, with notes on other species. *Ibid.*, No. 2101, 26 pp., 49 figs.
 - Description of a gynandrous specimen of a *Pseudatteria* species. Tijd-schr. Ent., 105: 223–237, pls. 7–8.
- 1963. 124. Some North American moths of the genus Acleris. Proc. U. S. Natl. Mus., 114 (3469): 213–270, 7 figs., pls. 1–18 (in English).
 - 125. North American species of the genus *Eana*, with a general review of the genus, and descriptions of two new species. Jour. Lepid. Soc., 16: 175–192, 7 figs. (in English).
 - Review: "Parasitensekten der Blattminierer Europas." By L. Fulmek. Ibid., 16: 237–238 (in English).
- 1964. 127. Griselda radicana Heinrich, 1923 (Insecta, Lepidoptera): proposed validation under Plenary Powers. Z.N. (S.) 1612. Bull. Zool. Nomenclature, 21: 144–145 (in English).
 - The genera of the Palearctic Tortricidae. II. Subfamily Olethreutinae. Part 5. Tijdschr. Ent., 107: 1–48, figs. 127–177, pls. 1–8. Amsterdam (in German).
 - 129. Neotropical Microlepidoptera. V. Synopsis of the species of the genus *Proeulia* from Central Chile. Proc. U. S. Natl. Mus., 116 (3501): 183–196, 9 pls. (in English).
 - 130. On the geographic variation of *Eugnosta margaritana*, with description of a new subspecies. Opuscula Zool., No. 75: 6 pp., 11 figs. (in English).
- 1965. 131. On *Paedisca radicana* and the type species of the genus *Griselda*. Amer. Mus. Novitates, No. 2213, 16 pp., 20 figs. (in English).
 - 132. The genera of the Palearctic Tortricidae. III. Addenda and Corrigenda. Part 2. Tijdschr. Ent., 108: 1–40, figs. 1–6, 4 pls. Amsterdam (in German).
 - 133. Two cases of synonymy in the North American *Acleris* species. Ent. News, 76: 225–232 (in English).
 - 134. The genera of the Palearctic Tortricidae. II. Subfamily Olethreutinae.

- Part 6. Tijdschr. Ent., 108: 365–387, figs. 178–191, pls. 16–22. Amsterdam (in German).
- 1966. 135. Neotropical Microlepidoptera. VII. New genus *Pseudomeritastis* and its species. Proc. U. S. Natl. Mus., 118 (3527): 221–232, 2 figs., 6 pls. (in English).

Papers in Press

- Neotropical Microlepidoptera. IX. Revision of the genus Atteria. Proc. U. S. Natl. Mus. (in English).
- 137. Neotropical Microlepidoptera. XI. Revision of the genus *Idolatteria*. *Ibid.*, (in English).
- 138. On the correct usage of two names of the genus-group in the Tortricidae, with the proposal of a new generic name. Ent. Gazette (in English).
- 139. Revision of the Palearctic *Amata* species. A monograph. Bavarian State Zoological Collection (in German).

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