BRAUERIA (Lunz am See, Austria) 20: 11-13 (1993)

ANDREI VASILIEVICH MARTYNOV: A LIFE STORY 9. (22.) 8.1879 - 29.1.1938

V.D. **Ivanov**

A famous Russian entomologist, Andrei Vasilievich Martynov, died in Moscow fifty-five years ago. He was a great trichopterologist, but his interests went far beyond caddis: he founded the only palaeontological laboratory in the world and described large numbers of fossils; he wrote many papers on carcinology, proposed the subdivision of Pterygota into Palaeoptera and Neoptera based on many studies in morphology, and described some Plecoptera, besides numerous keys and chapters in textbooks. His difficult life was an example of purposefulness and he was an alert scientist until the end.

A.V.Martynov (A.M.) was born in Ryazan City, in an old poor estate of his noble parents. His father, Vasiliy Alexeevich Martynov, was a doctor; his mother, Alexandra Ivanovna Martynova, spent her days at home, sometimes playing the piano, but mostly looking after their single-floored house and for A.M. and five other children. His brother, Alexei, was 10 years older than him. The two brothers had rather difficult dispositions inherited from their mother. Alexei (1868-1934) was a surgeon and a good pianist; A.M. also could play the piano and the violin. There were four sisters.

A.M. entered the Ryazan Men Gymnasium (high-school for noble children in old Russia) in 1888 and passed all finishing exams in 1896 with distinction. After graduation from the gymnasium, he entered the Faculty of Physics and Mathematics of Moscow University in 1897. A.M. was interested in biology in his schoolyears and was self-motivated enough to break his father's wish: Vasiliy Martynov wanted him to be a doctor. A year spent at the Biological Division of that Faculty shaped his interests, and despite many dramatic changes he always turned back to entomology.

The beginning of 20th century was a time of radicalism in Russia; students were very active in political affairs and mostly were in opposition to the monarchy. A.M. was so drawn into this struggle against the establishment that he was expelled from Moscow University and deported to Ryazan. His father was beside himself with rage: the son appeared to be wrong in everything - and expelled ! Soon the father enlisted the name of A.M. as a volunteer, and the failed student became an inferior clerk in a local military unit. A year later on, A.M. passed the exams and got a comissioned rank: he could have become a reserve officer. Soon he went back to Moscow University and made his first studies in trichopterology. The practicals at the university field station near the Glubokoe Lake was the beginning of his scientific work on caddisflies, but his first article was published (in German !) on the larval glands, instead of faunistics, in 1901. Another article, on the caddisflies of the Glubokoe Lake, was published at the time of his graduation from the university (1902). A.M. got a position at Moscow University 'for the preparation to the professor rank': it was a kind of postgraduate training with teaching and scientific studies.

The next year (1903) was a time of disaster for Russia as well as for A.M.: the war aganist Japan began. A.M. was an officer and had to go to the army as an artilleryman. His regiment took part in manoevres in Mandzhuria (Far East). From time to time he had the chance to collect caddisflies there. Fortunately, A.M. did not take part in battles: he was taken ill when his stomach was disturbed in student dining-rooms; and he was many times in hospital. The rest of his life he suffered from gastric juice deficiency and indigestion.

Japan won the war, and A.M. was allowed to return to the reserve. He appeared once more in Moscow University to continue his studies on Trichoptera. Soon, in 1906, he got an assistant position at Warsaw University (Poland was a part of the Russian Empire). A.M. received a small sum of money for a scientific expedition and decided to make a collecting trip to Caucasus. His friend, an odonatologist called Bartenev, was his companion. They visited the central part of Caucasus, including North Georgia, and sampled a lot of insects, mostly undescribed. An enigmatic lepidostomatid, Martinomyia (=Protomyia) tripartita (Mart.), has never been found since that time; there were also many other new species. It was a really happy time for A.M.

Professor Metalnikov, the head of the Zoological Department, was a very serious person; he treated entomology like "belletrism" and could not let his staff make such ridiculous studies. Thus, A.M. was forced to fulfil the 'real' zoological investigation and got shark embryology as a subject for his thesis. He passed the magister examinations and was sent on a mission to the Rostock marine station, to collect shark eggs and study fish biology. As a result, he wrote a thesis on shark embryology, and published a single article on these unpleasant vertebrates. After this adventure, he went back to trichopterology and studied collections from the St.Petersburg Zoological Institute sent to him by the collection curator, Prof.N.N.Adelung, for determination. There was another successful trip to Caucasus. Many new species were described this time: the Russian fauna of caddisflies was full of interesting surprises, especially in Caucasus, Siberia, and Middle Asia (Turkestan).

Soon this happy period was broken by the First World War. A.M. was mobilized once again and went to the commander's headquarters in the Ivangorod fortress. He was a head of that unit for a short time: perhaps he was too honest for that safe position in the rear. He was moved to Riga as commanding officer of anti-aircraft battery. The war was far from the position of our brave gunner, the aircrafts were weak and rare, so there was time enough for science. A.M. found a place and a microscope in the nearest hospital, and used his free time to study another collection sent by Prof.Adelung. Some articles were written just in the Army. At the same time, he was a good warrior: the High Command conferred an engraved weapon on him.

Meantime the German troops came close to

Warsaw, and the University was evacuated in 1915 to Rostov-on-Don. Martynov's library was burned in Warsaw and the manuscript on shark embryology was lost. The main part of his private collection also disappeared.

The October Revolution (1917) was a time of chaos in Russia. The battery soldier committee took away his officer rank from A.M. and he was demobilised. The soldiers were friendly with him; it was the only way they could help him to leave the army. A.M. was 38 years old and now he was safe from another mobilization in the future. God knows how he could get from Riga to Rostov-on-Don at that difficult time. He found the remnants of his collection; A.M. was back in his profession. The city was occupied by 'whites' (anti-communist troops), and there was no connection with Petrograd (St.Petersburg). Having no caddis materials, he started to study Malacostraca in springs and in the Don River. An article based on a large amount of material from the Don and adjacent sources was soon written, and A.M. became a leading specialist in Gammaridae. Another 13 papers on carcinology were published in the subsequent years. The rest of the Warsaw collection was deposited in Rostov-on-Don until the 2nd World War when it was destroyed with the whole building.

Finally the white troops were defeated and reds occupied Rostov-on-Don. It was hunger everywhere, no jobs, no money. His friend, Bartenev, denounced A.M. as an anti-communist. The civil war made the life in Rostov unbearable. A.M. sent three applications: to Perm and Simferopol Universities, and to the Zoological Museum of Russian Sci.Academy. He was offered all three positions, but chose to be a pure scientist, and on 15 January 1921 he became a scientific curator of the Zoological Museum. In the spring of 1921 he made a travel in the tender of a locomotive (no other transport was available) to Petrograd.

The head of the Zoological Institute at that time was Prof.A.A.Byalnitsky-Birulya. He appreciated that A.M. needed urgent help: the trip from Rostov-on-Don had been exhausting. The situation in Petrograd was difficult, most people starved. A group of ichthyologists organized an expedition to Karelia some 300 km NE from the city. The main aim of this Olonets expedition was to provide the zoologists with food: it was good fishing in the numerous lakes and rivers, forests were rich in berries, and the local settlements had enough potatoes for sale and exchange. A.M. was included in that expedition for the collecting.

The Olonets expedition was successful: large numbers of caddisflies were collected, including Polycentropus aquilonius Mart. (no new material besides the type). His health grew better and - the most important event - A.M. met his future wife. Olga Mikhailovna Alexandrova (Martynova) was 20 years younger than A.M.; that time she was a 3rd year student. She was born in the family of a forester and her childhood was spent in the Academy of Forestry. She had been educated in the Women's Institute, where her aunt had a job, and then entered the Nekrasov Pedagogical Institute. One student, a friend of hers, was invited to the Olonets expedition. He asked Olga to pass some papers to the head of the expedition, G.Yu.Vereshtshagin. As a result, Olga was permitted to participate in this expedition and went to Segozero Lake, where the zoologists were sampling. She was collecting when a tired man approached the lake and asked her what she was doing. "I'm collecting small insects. Do you know what they are ?", she replied. A.M. (it was he) said "Aha" and went away. At the dinner that day she was introduced to A.M.; what a shame it was to meet the person she had instructed in this manner and recognized him now as a famous entomologist of world-wide reputation !

The biologists went back to Petrograd in the autumn of 1921. Friends persuaded Olga to work as a laboratory assistant in the Zoological Institute. She was instructed by E.F.Miram, senior assistant, to be a helper of A.M. who had nobody to do routine work on keeping the collection. It can be said that A.M. was very busy and often forgot the insects on his table. His new assistant put these specimens back in the collection, wrote all labels accurately, kept up the cataloguing, and made the preliminary treatment of samples and the final arrangement of collections. At first A.M. refused to work with her and asked his boss: "What does she work with me ?". Prof.Byalnitsky-Birulya came time to time and asked whether A.M. was kind to Olga. Soon A.M. changed his mind and they got married. Their first baby, a girl, died very early. Then, in 1924, a son called Nikolai was born. They continued work on Trichoptera and other insects. A.M. told his wife that he could not work without her, and she even went to the maternity hospital straight from the library.

A.M. studied the Russian fauna and compiled the first review of Russian caddisflies. There were some problems with the wing veins homologization. A.M. started to study the wing structures and soon he was completely engrossed in these morphological studies. He found the insects to have two types of wings (Palaeoptera and Neoptera) and proposed the term "jugum" for the folding part of the wing. The first report on these discoveries was made at the session of the Russian Palaeontological Society and then repeated at the 1st All-Russian Congress of Zoologists, Anatomists and Histologists (1923). The basic reference work on this problem was published in Germany (Ztschr.Morph.Ökol.Tiere 1925, vol.4, no.3:465-501); the Russian version of this article appeared a year earlier, but there were so many printing errors that A.M. did not include it with his later publications. He studied also the structure of nygmata on wings, the wing venation of dragonflies and mayflies, and wings of Isoptera. There were also some considerations on the origin of Holometabola and on the basic features of disappearing and newly evolving groups.

A.M. received collections from Siam, China, Japan, India and Indonesia, but the main source of new material came from Turkestan, Caucasus and Siberia. He sent back all foreign types. In all he wrote 67 publications on caddisflies. A.M. wrote large numbers of descriptions; his Russian types were deposited in the Zoological Institute except those of his early sampling and a number of specimens destroyed in the Zoological Institution during the 2nd World War. Works on evolution directed his interest to fossils and palaeontology.

There were only a few of Handlirsch's types available in the Geological Institute, and A.M. then collected fossils himself. In 1924 he made a trip to the Karatau Mts. (Turkestan) where the Jurassic shales were known to be rich in fish and other animal remnants. Here he made his first fossil collection. Prof.Edemsky from the Geological Museum brought a large collection of Permian insects found in the Arkhangelsk district (River Sojana). A.M. combined the studies of fossils in the Geological Museum and Trichoptera work in the Zoological Institute. There was another trip to Kama River in 1927 to collect Permian insects.

It was a period of intensive scientific work. Nevertheless, time went at a slower rate half a century ago: there was the chance to drink tea for hours at the Russian samovar, to visit many concerts; people often came to see friends. Large parties got together at Martynov's county cottage in Siverskaya for insect-collecting, and many specimens from these parties were deposited in the Zoological Museum. A.M. shared his cottage with an academician, Prof.P.P.Sushkin, who was a wellknown palaeontologist and ornithologist. There were many visitors and friends despite the irritability of A.M. Once they spent a night listening to Dr.Semenov-Tyan-Shansky, famous entomologist and traveller, reading his own poetry.

In 1935, A.M. got a position in the Palaeontological Institute (Moscow) and turned over his Trichoptera collection and room to Prof.S.G.Lepneva. It was the head of the Palaeontological Institute, Prof.Borisyak, who had lured A.M. away. There were some 3000 fossils in Moscow, but A.M. preferred to make his own collections for study and was not happy to move his home; furthermore, he did not want his wife to leave her native city. Nevertheless, they departed to Moscow on 1 January 1936. A unique laboratory of insect palaeontology was established by A.M. in Moscow - the first in the world. Studies of fossils began with the aid of E.Becker-Migdisova and B.B.Rohdendorf who studied Homoptera and Diptera respectively. A.M. was sure that fossils must be studied by specialists on the extant insects. It was necessary to study evolution through time, and the most ancient of remnants were studied first. There were some palaeontological expeditions to Ural and Middle Asia for new fossils.

A.M. supported the theory of continental drift that was too speculative for the geologists of the 1930s. His main work on the fossils was "Studies on the geological history and phylogeny of insect orders (Pterygota)". The first part was published in 1938; the second part (on Holometabola) did not appear and all manuscripts and rough drafts of this part were lost after Martynov's death.

Life grew more and more difficult with Stalin's repression. Many people were imprisoned, some of them were executed; others were forced to support the communist terror and had to blame 'capitalist agents' publicly. A.M. was too honest for these affairs and behaved decently. A number of scientists in th Zoological Institute were arrested; their only crime was to have foreign (usually German) surnames. A.M. did not say a word against them and just grumbled: 'What a nonsense!'. He was an old army officer and made imprudent actions. Certainly he did not fear, and Mrs.Martynova prepared two small suitcases for themselves to take in jail in the case of arrest. In 1935 they burned her diary and most of her correspondence; the remnants are deposited in the Ryazan District Archives, fund "P-6043".

Probably A.M. would have been arrested if he had lived a few years more, but he was very ill. The remedies against museum pests were very archaic at that time, and curators usually added quicksilver to the samples. Until recently one could find droplets of mercury in the museum boxes. Nobody could be healthy there. Once A.M. got a fish bone in his gullet; Mrs.Martynova took him to hospital, but he refused the operation. A.M. usually ate very hot meals, and this could have been the cause of his gullet cancer. He died on 29 January 1938 in his Moscow flat, Spasoglinishchevsky Lane (renamed to Arkhipov Street), 8-16.

His son was an engineer, he died recently. Two grandchildren are also engineers. Olga Mikhailovna Martynova did not work in Moscow until the death of her husband. Then she studied fossil Mecoptera, Neuropteroids and Trichoptera in the Palaeontological Laboratory and wrote many important articles on these insects. She is now living in Moscow, and the author is greatly indebted to her for most of this information.

A list of Martynov's publications was printed in Latvijas Entomologs (1990) 33:114-124; a list of obituaries is added.

Obituaries

Anonymous, 1938, - Arb.morph.taxon.Ent.Berlin 5:187.

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Uvarov,B., Zeuner,F., 1938, Prof.A.V.Martynov. - Nature 141(3566): 401-402.

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Photographs from the 7th Trichoptera Symposium, Umeå, 3 - 8 August 1992:

The small group of trichopterists who have attended all seven symposia: Neboiss, Cianficconi, Flint, Solem, Moretti, Morse, Crichton, Resh, Wichard, Higler, Malicky.