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**In memory of Olga Mikhailovna Martynova
(1900 – 1997)**

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O.M. Martynova (Aleksandrova) (see the cover photo) was born in St. Petersburg on 19 July 1900; her father was a forester. They moved to Narva, where Olga entered a grammar school. Her father was then moved back to Petrograd, as the city was renamed after the 1st World War; here she completed her schooling. She remembered from this time seeing the last Russian Tsar, Nikolai II. Olga now entered the Faculty of Geography in the Petrograd Pedagogical Institute, and also attended lectures in the University and the Academy of Forestry. While a student she became interested in freshwater animals. In 1921, while still a student, she took part in the first scientific expedition of the State Institute of Hydrobiology, to study the waters of Karelia. These were difficult and hungry times, but nothing could weaken the zeal of this young vigorous girl with her ringing laughter and quick tongue. Throughout her long life she retained her optimism and sense of humour. On this expedition she met Professor Andrei Vasilievich Martynov, whom she married in 1923.

She now started working in the Department of Entomology of the Zoological Institute of the Academy of Sciences (ZISP), first as a laboratory assistant and then as a scientific research officer. Here she worked hand in hand with Martynov until his untimely death in 1938. Her first scientific papers (1923-1930) appeared under her maiden name of Alexandrova. She studied Trichoptera and Neuroptera in the collections of ZISP. She was in charge of these two groups, organizing the collections under the old traditions of the Institute. This system continued until recent years. Sometimes the names of newly determined species were outlined by A.V. Martynov, who left the labelling to Olga.

In 1936, the family moved to Moscow, following the move of the Academy of Sciences and Palaeozoological Institute to that city. A.V. Martynov was already working on the first collections of fossil hexapods, and had established the first Laboratory of Palaeoentomology in the world. After his death in 1938 Olga organized the files of his material. This was her first work in the new Arthropod Laboratory of the Institute of Palaeontology of the Soviet Academy of Sciences. In 1938 Boris Borisovich Rohdendorf became the first Director; he was a well-known expert on Diptera and had already been invited there by A.V. Martynov as his probable successor. At this time the Institute had a staff of only three: Rohdendorf, Olga and E.E. Becker-Migdisova. Olga was responsible for Mecoptera, Neuroptera and Trichoptera.

The field work started by Martynov was continued. Olga was in the first palaeontology expedition in 1938 to the Kargala copper mines. In 1939 with Becker-Migdisova and two teenagers (her son and a son of A.A. Shtackelberg), Olga went to the

North Caucasus. Both expeditions yielded rich material, and plans were prepared for further work. However, it was now 1941, and the Soviet Union was drawn into the 2nd World War.

These were difficult and hazardous years for everyone in the country. Already in 1941 the evacuation of the Institute to Alma-Ata City in Kazakhstan was begun. The collections were prepared for removal there, or safe-keeping in Moscow. At the end of August 1941 Olga went with Rohdendorf and other palaeontologists to the Kargala mines on the Orenburg district. They had to plan for storage of collections in the old copper mines, which had been closed in 1909. More copper was now needed also for military purposes. They worked in very severe winter conditions often with no timbering in the galleries, with almost no lighting, and little food. When the work was finished in March 1942 Olga returned to Moscow to help in protecting the collections in the Institute. She was in night watches on the roof dealing with incendiary bombs. Despite everything Olga continued with her scientific work. At the beginning of the war the government had ordered research laboratories to direct their work to practical ends to help in the war effort. Rohdendorf proposed a new theme in the study of insect flight which could help with aircraft problems. Olga prepared the literature survey and illustrations and made contacts with the Zhukovsky Aviation Academy. This work was completed in Rohdendorf's remarkable monograph, **Evolution and classification of flight mechanisms of insects** (1949).

By September 1942 almost all the remaining staff of the Institute had been moved from Moscow to Alma-Ata City. In the spring of 1943 the Institute moved to Bishkek in Kirgizia (known then as Frunze), where conditions of the life were a little better. While still based in Moscow, Olga went in the summer of 1942 on an expedition to Kirgizia (Chon-Tuz) and in the summer of 1943 to Issyk-Kul Lake. Despite difficult conditions valuable material was collected. During the war years Olga published several papers on Permian and Jurassic fossil insects, mostly on Mecoptera. In 1946, in spite of housing problems and shortage of food she defended her PhD thesis, and in 1948 published her book **Materials on evolution of Mecoptera**, based on the thesis. This work clarified the phylogeny of the Mecoptera and the relations of extant relict species with the Mesozoic faunas. As well as Mecoptera she was interested, from 1947 to 1961, in fossil Neuroptera, Raphidioptera and the extinct order Glosselytrodea.

Olga's studies of 1940 and 1952 were the basis for a sound critical revision of existing classifications of recent and fossil Mesozoic and Palaeozoic lacewings and the significance of relict families. She described in 1947 the Jurassic and Cretaceous lacewings of the family Kalligrammatidae. These insects, with enormous wings, bore a superficial resemblance to butterflies. Rohdendorf described as very important her discovery of fully-winged specimens of Permian Glosselytrodea. She also made important discoveries on Trichoptera in 1958 and 1961

in finding the first fossil *Amphiesmenoptera* (*Microptysmatidae*) from the Permian, which she regarded as *Trichoptera*, and proposed the suborder *Permotrichoptera* for them. She regarded the anal loops on the forewings as adaptation for maintaining air storage under the overlapping hindwings while diving. She suggested that *Lepidoptera* should also have had an aquatic mode of life.

The monograph **Palaeozoic insects of the Kuznetsk basin** (1961) described 429 fossil insects as a result of collective work in the Institute. In 1962 it won an award from the Moscow Society of the Investigators of Nature. This monumental publication was prepared mostly by Rohdendorf, Olga Martynova, Becker-Migdisova and A.G. Sharov. Olga wrote the general and geological parts and sections on *Miomoptera*, *Neuroptera*, *Mecoptera* and *Trichoptera*, and also most of the chapter on faunistic complexes.

The volume **The Arthropods, Tracheata and Chelicerata** in the series **Fundamentals of Palaeontology** was issued in 1962. In it Olga wrote sections on 21 orders of hexapods, including *Mecoptera*, *Neuroptera* and *Trichoptera* and also on such remote groups as *Apterygota*, *Isoptera*, *Dermaptera*, *Embioptera*, *Phasmatodea*, *Thysanoptera* and the extinct *Miomoptera* and *Caloneuroidea*. The **Fundamentals of Palaeontology** was a unique publication and won the Lenin Prize, the highest award in the former Soviet Union.

Other field work carried out by Olga Martynova included fossil deposits in Zaisan and Irtysh (Altai Mountains) in 1946, and between 1949 and 1956 to Kuzbass where there were large Permian deposits. These finds led to the next stage of study of faunistic complexes following on the work of A.V. Martynov. In all her publications and at meetings in Leningrad, Moscow and Tomsk, Olga emphasized the importance of insects in stratigraphy and correlations of beds. Her last expedition was in 1959 to Transbaikalia to visit the Lower Cretaceous site at Baisa and to the Jurassic site at Ust-Baley at the Angara River. Both these sites had been only recently discovered. The material collected was rich in fossils, including *Trichoptera*, often in large aggregations of larval cases.

Olga Martynova was a natural field worker. She retained always her sense of responsibility, efficiency and persistence, as well as optimism. Young people often joined in her expeditions and became enthusiasts in the difficult and tiresome search for fossils. Many of them carried on as biologists. We must remember her activity in Palaeontological and Entomological Societies and especially in the Moscow Society of the investigators of Nature. She was a member of this last Society from 1939 and Honorary Member from 1996, and founded the section on Palaeontology and also presented several of scientific reports. In 1960 she was allowed to attend two scientific meetings outside Russia. The first was the 11th International Entomological Congress in Vienna where she talked on Carboniferous and Permian *Raphidioptera*. The second was the International Geo-



Olga M. Martynova with F. Carpenter in the 1960's in Moscow

logical Conference in České Budějovice where she reported on the stratigraphic importance of insects.

In addition to all her scientific work, Olga looked after the collection of fossils during her years at the Institute of Palaeontology. She had developed a system of registration for some 250.000 items. This system was compatible for computer registration. She also helped in accumulating a library which is now the largest collection of palaeontological literature in the world.

Olga Mikhailovna Martynova had a unique personality. She was always elegant and efficient, with a shock of disobedient hair which turned prematurely grey. She had an astonishing character which made everyone feel love and respect for her. She had so many friends and wrote hundreds of letters when on holiday. Olga kept up her social activity throughout her years in the Academy of Sciences. She fought for better working and living conditions for staff in the Academy as a whole. She would always take the risk of writing to the authorities on behalf of repressed colleagues and pleaded for justice in the 1930's when people could be done away with for no good reason. She cared for the families of imprisoned colleagues and did all she could to help them, despite the danger to herself. She had real courage and would always help friends in danger. This courage helped her to endure the death of her son and the elder of her two grandsons. She helped her relatives, including the family of her younger grandson, and especially her daughter-in-law L.V. Martynova with whom she lived for 50 years. Towards the end she was blind and could not walk about because of a leg fracture.

Despite everything she kept in contact with her former colleagues and remained well-informed about everything in the Institute, thirty years after her retirement. Her last scientific work, **Chapters in the historical development of insects**, was published in 1980. She had published a total of 60 scientific papers and books.

Olga Mikhailovna Martynova passed away on 18 February 1997.

(Re-written by M.Ian Crichton, 26 May 2002)

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