

IN MEMORY

Anna Jerzmańska

July 9, 1928 – February 17, 2003



Professor Anna Jerzmańska passed away on the 17th of February, 2003, in Wrocław, after a long, terminal illness that had cut her off from colleagues and friends long before her death. That is why we remember her as she was before the illness a delicate, gentle woman with an unchanging, youthful way about her. Behind her delicate exterior lay the heart and mind of a great scientist and organizer, and a steely strength of personality. Sensitive to any wrongdoing, she never let such behaviour go unquestioned and immediately and strongly react, for example, with her well-known and indignant question “Do you hear what I hear?”. All these traits were quickly noticed at the start of her academic career, and were obviously the effects of her good upbringing and the experiences of her youth, in the years of the Second World War and after the War.

Anna Weronika Madej, later Professor Jerzmańska, was born on the 9th of July, 1928 in Piotrków Trybunalski, the daughter of Stanisław Madej, a merchant, and Bronisława Madej, née Flakiewicz. Up till the outbreak of the War, she lived in Łódź, where she started primary school. It was 1941, and she was back in Piotrków, when she finished primary school and went on to attend a secret lower secondary school, graduating in July of 1945. Her next step was to attend an Arts profile higher secondary school, again in Piotrków. In 1945 and 1946, she was active in the structures of the Homeland Army; this political activity earned her several months in prison, breaking her studies in the higher secondary school. Thus it was in a different school, the Natural Sciences Higher Secondary School for Adults in Gliwice, that she was to take her graduating exams in 1947. Autumn 1947 saw her become a student of the Natural Science Faculty of the University of Wrocław. She graduated with a Master’s in the Philosophy of Zoology and Comparative Anatomy based on her thesis “Planktonic *Cladocera* in Lake Charzykowo”. In May of 1950, while still a student, she took a job in the Zoological

Museum of the University of Wrocław, at first as an deputy assistant, later as a full assistant. In August, 1953, she transferred to the Palaeozoology Department, as a senior assistant, and that was the Department she would remain involved with for her whole professional life. In November 1951, she had married Jerzy Jerzmański, a scientific worker in the Wrocław branch of the Geological Institute. They had two children: Ewa (born 1952) and Jan (born 1957).

Despite the many difficulties that dogged her life, and her serious familial responsibilities, Anna Jerzmańska achieved numerous successes in her scientific career, and was awarded successive scientific titles from the Faculty of Natural Sciences of the University of Wrocław. She became a Doctor of Natural Sciences on November 17, 1960, based on her thesis “The Ichthiofauna of the Jasło Shales at Sobniów”, written under the supervision of Professor Zbigniew Ryzewicz. Eight years later, 5th of December 1968, she did her Habilitation on the thesis “The Ichthiofauna of the Menilite Beds (Carpathian Flysch)”. With the 1st of September, 1969, her title and position were that of Docent (a tenured lecturer). She remained a tenured lecturer in the Faculty until the 6th of July, 1978, three days before her fiftieth birthday, she was awarded the title of Associate Professor of Natural Sciences. The final step in her advancement came in April, 1995, when she was made a full Professor.

There was no point in her academic career when she was not as dedicated to teaching as she was to research. She began as a tutor and demonstrator, running tutorials and practicals on palaeontology for biologists and geologists. In 1956, before she had completed her PhD, she was entrusted with the task of lecturing micropalaeontology to geologists. Palaeontology and marine biology were added to her repertoire after her Habilitation. An example of how respected she was in her field was the Jagiellonian University’s decision to invite her to give the lecture “The Palaeogenesis of the Carpathian Marine Vertebrates”. 27 students did their PhD theses under her supervision, and she was a reviewer for many more theses and projects.

Professor Anna Jerzmańska was also involved in other forms of work for her University. Her activity took numerous forms, including being the Dean of the Faculty of Natural Sciences from 1978 to 1981, the Deputy Head of the Department of Zoology (1972–1974) and the Head of the Comparative Anatomy Department (1994–1998). From 1972 to 1974 she was also delegate of the Faculty Board to the University’s Senate, and later, she was a member of many senate and faculty committees.

Another way in which Professor Jerzmańska worked for the scientific community was through her place on the boards of the Institute of Palaeontology of the Polish Academy of Sciences in Warsaw and the Institute of Animal Evolution and Systematics of the Polish Academy of

Sciences in Kraków. She was a member of the Evolutionary and Theoretical Biology Committee and the Zoology Committee of the Polish Academy of Sciences, as well as being an active member of numerous scientific organizations, such as the Polish Zoological Society (from 1951), the Polish Natural Science Society (from 1951), the Society of Vertebrate Palaeontology, the Polish Geological Society (from 1953), the Wrocław Scientific Society (from 1973). In every society she was involved in, she took on an active and responsible role.

The patriotic activities of her youth as a member of the Homeland Army, opposed to the oppressors of the post-war period, were followed by membership in the World Association of the Soldiers of the Homeland Army (Lower Silesian branch) and the National Association of Former Soldiers of the Polish Army Conspiracy.

The sum of her activities in these many organizations was rewarded with four prestigious awards when she received the Golden Cross of Merit (1973), the Knight Cross of Polonia Restituta (1979), the Medal of the Commission for National Education (1979) and the Jubilee Medal for the 300th Anniversary of Wrocław University (2002).

Professor Anna Jerzmańska had a close bond of friendship with geologists and a soft spot for geology as a whole. Her chosen field of research was Palaeontology, the science that links geology and biology so strongly; this choice meant that she spent her life working in close contact with geologists. We cannot say whether her love of geology was the reason she chose a geologist, Jerzy Jerzmański, as her husband, or whether it was her husband who introduced her to the joys of geology, but we somehow feel sure the two facts were closely connected.

A total of 55 publications came out of her research, of which 23 were written and published jointly with geologists, mainly with Professor Janusz Kotlarczyk of the Mining and Metallurgy Academy in Kraków. Her research saw two main aims realized: one, palaeontological, was the classification of the faunal groups, ecology, faunal migrations and phylogenesis recorded in the rock formations she studied; the other, geological, usually carried together with geologists, covered the rock formations' stratigraphy, palaeoenvironment, palaeogeography and changes therein through time. The geologists who worked with her were greatly impressed by her initiative in obtaining palaeontological material and in performing technically difficult field work and demanding geological experiments, particularly considering the fact that such work was not part of her zoological studies. There was always great recognition for the methodological merits of her work involving the application of zoological methods of fossil identification, direct comparison forms from the Polish Carpathians with forms from the Romanian Carpathians, and the development of detailed methods of the collection of fish fossil remains from geological profiles.

Professor Jerzmańska's research covered the Oligocene ichthiofauna of the Carpathians, the Palaeogene freshwater fish of Central Europe and the evolution of the Eocene marine Teleostei from the Seymour Islands (Antarctic).

Her work on the Oligocene ichthiofauna of the Car-

pathians included the following major achievements:

1. The collection, between 1954 and 1994, of one of the world's greatest collections of bony fish (Teleostei), excellently geologically documented and containing over 12,000 samples from the menilite-Krosno series.

2. The description of new taxa, including a new subfamily of Eogastrophinae, five new genera and nine new species. Among these new taxa, there were three genera that were the first fossil examples of the modern families of Alepocephalidae and Triacanthodidae. The discovery of these forms gave new evidence for the reconstruction of the early stage of the phylogenesis of the Salraoniformes and Tetraodontiformes orders.

3. The establishment of the palaeoecology and biostratigraphy of the Jasło limestones; her very first published work on the upper Oligocene fish of the Jasło limestones (her PhD thesis) showed that there were many fish fossils there belonging to three known modern meso- and bathypelagic families displaying light organs (Myctophidae, Gonostomatidae and Sternoptychidae). These fossils were accompanied by those of far less numerous epipelagic forms. The composition of these assemblages was the basis for a new ecological and stratigraphic interpretation of the Jasło limestones having sedimented in a deep marine basin. The great interest that these results provoked is evidenced by the fact that her theses was published for a second time in 1964, this time in English, on the order of the Smithsonian Institute in Washington, and the citation of her work in palaeontological textbooks published in Moscow (1964), Jena (1966, 1984), Paris (1966) and of course in Polish textbooks (1966, 1969). The next stage of her work in the Carpathians, on outcrops and profiles, led to the broadening of the taxonomic composition of the fish by three ecologically and taxonomically distinct assemblages (the upper and lower bathypelagic groups and the nerythic-sublittoral assemblage found between them). The distribution of these three assemblages was considered evidence of changes in the depth of the Carpathian Basin in the Oligocene. Further research on fish from many outcrops in various parts of the Carpathians (1976) permitted the proposal of the division of the menilite-Krosno series into six zones, named with the acronym IPM (ichthiofauna, palaeogene, menilite-Krosno series), and the description of the index species for each zone. This division was confirmed by studies on Oligocene otoliths from fish found in the western Carpathians; it later proved true for the whole of the Carpathian arc (1988). In the highest zone, IMP-6, a highly unusual biocoenosis was found. It was composed of epipelagic algae and fish that lived among them, along with fish from deeper zones of the basin – meso- and bathypelagic. This assemblage was called quasi-sargassic, and it has features of the sargassan biocoenosis, and could have migrated into the Atlantic region before the destruction of its initial environment by the Alpine folding at the end of the Miocene (1975, 1976).

In terms of her studies of Palaeogene European freshwater fish, her important achievements include the presentation of a hypothesis on the origin and directions of migration of the representatives of several families, including the close relatives of the modern *Alma calva*.

Her main achievement in the field of the evolution of the Eocene marine Teleostei of the Seymour Islands (Antarctic) is the documentation of the first southern hemisphere appearance of the extinct Gadiformes. The study was done on the basis of isolated spinal elements and jaws. Work on full skeletons of eocene fish gave a description of a new genus and species (*Marambiobella andreae*) of the Ciupeidae, and the documentation of the most southerly range of the Ciupeidae.

The work of Professor Anna Jerzmańska has unending value for geology. Her pioneering work on Carpathian ichthiofauna fossils, based on interpretations of the sedimentation environment of the rocks, has a permanent place in the literature on the Carpathian Flysch; in addition, it has become part of the world canon of palaeontological knowledge. An apt epitaph to her life's work can be found in the words of Horace: *Exegi monumentum aere perennius...*

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