

On the Anniversary of Aleksandr Georgievich Ponomarenko

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On January 16, 2008, the outstanding Russian paleontologist and entomologist Aleksandr Georgievich Ponomarenko celebrated his 70th birthday.

A.G. graduated from the Department of Entomology, Faculty of Biology and Soil Science, Lomonosov Moscow State University (MGU), where E.S. Smirnov and A.B. Lange were among his mentors. In his student years he already started the study of longhorn beetles, and in 1959 participated in a paleontological expedition of the Paleontological Institute (PIN), Academy of Sciences of the USSR, to Transbaikalia. After graduating MGU in 1960, A.G. joined the Arthropoda Laboratory, PIN, headed by B.B. Rohdendorf.

At PIN A.G. turned his attention to fossil Coleoptera, taking up the reins from B.B. Rohdendorf—in coauthorship they prepared the chapter on beetles in the handbook *Fundamentals of Paleontology* (1962). A.G.'s first publications were devoted to Mesozoic aquatic beetles, and the very primitive Coleoptera

of the suborder Archostemata. His broad and multifaceted scientific interests has already become apparent—he is able to effortlessly bridge the gap from the highly specialized study of the taxonomy of insects that became extinct hundreds of million years ago, to general aspects of evolution and ecology.

After several years A.G. became a leading world expert in fossil beetles, having described hundreds of new species from the Permian and Mesozoic. He and his colleagues spent almost every field season in expeditions to different corners of the Soviet Union, from Taimyr to Central Asia, and from the Caucasus to Primorye, returning to their institute with saddle boxes full of priceless new material. In 1967 he presented his Ph.D. thesis “Historical Development of Coleoptera: Archostemata”, published as a book in 1969.

From 1969 to 1989 A.G. led the studies of the fossil insects of Mongolia and headed all the paleontological parties of the Joint Soviet-Mongolian Paleontological Expedition. In those years more than a hundred sites were discovered and tens of thousands of Mesozoic and Permian insects were collected. Although he had no special training in geology, during these studies he largely filled this gap, and became a real ace in the reconstruction of paleoenvironments.

A.G., along with his brothers in arms, spent much time and energy creating a new exhibition of the Paleontological Museum in the specially designed building at Profsoyuznaya Street, and was for a while in charge of this museum. He created scientifically correct reconstructions of extinct animals with his own hands, and spared no pains to consult animal artists who transformed these sketches into scenes of prehistoric life.

In the 1970s A.G. twice traveled to Japan with paleontological exhibitions as their scientific consultant, his encyclopedic erudition and good nature winning him the respect and sympathy of everyone he met there, from translators up to the present emperor of Japan, a reputed biologist. He spent his time off visiting Japanese research institutions, and obtained several valuable showpieces for the Paleontological Museum.

Preparing several chapters in the multiauthored book *Historical Development of the Class Insecta* (1980), he expanded his interests into some other groups: neuropteroids (treated in a series of subsequent taxonomic publications), fleas and their precursors, and scorpionflies. He studied more taxa of Coleoptera and developed his original concept of the evolution of this order. The multiauthored book *Mesozoic Coleoptera*

(1977) was translated into English. In 1983 A.G. presented his doctoral thesis "Historical Development of the Order Coleoptera."

In the late 1970s his studies moved to a new level. Now some of his papers dealt with entire insect faunas and non-marine aquatic ecosystems of the geological past, their evolution (including stratigraphical aspect) and paleobiogeography. He was one of the leaders of the new research subject of the laboratory, the joint study of Jurassic and Cretaceous insect faunas of several sites and regions in Siberia and Mongolia. He even described horseshoe crabs and goose barnacles (that lived not only in seas in the past).

Having inherited a passion for the sea from his parents, in 1987 A.G. had the opportunity to work in warm seas and see the tropics—in a research ship voyage between the Vietnamese islands he led the entomological team, and tested the theory of island biogeography by practice.

Studying the evolution of ecosystems, A.G. immerses himself in the taxonomic diversity dynamics of insects and other groups, mechanisms of global ecological crises and expansion of evolutionary innovations. Following the example of mammalization of theriodonts, he has advocated arthropodization, angiospermization and makes the "-zation" concept almost philosophical.

Since 1995 A.G. has worked at the Laboratory of the earliest organisms, PIN, and also in 1998 joined the newly formed inter-institutional Laboratory of bacterial paleontology of terrestrial and extraterrestrial objects. Being now not restricted to any formal themes, he pays even more attention to theoretical investigations (but also continues to study his favorite fossil beetles): description of major events in biosphere evolution, such as the pellet revolution in Cambrian oceans. He enthusiastically joins the studies of microbiotas from ancient continental waters under the scanning electron microscope, demonstrating that prokaryotes played a much more important role in Mesozoic and Cenozoic eutrophic lake ecosystems than in present-day ones.

A.G. is born campaigner for science, able to infect anyone with his enthusiasm. Especially great are his

achievements in the promotion of paleontology—for tens of years he gave courses of lectures at the biological faculty, MGU, awakening interest in our science in rising generations. A.G. actively involves experts on modern arthropods from different research institutions, cities, and even countries in describing our fossil material. He is an enduring and attentive supervisor, as confirmed by all the postgraduates (from Russia and abroad) that had the good fortune to prepare their theses under his guidance. A.G. is profoundly interested in the studies of young researchers; he often initiates and actively participates in discussions of various aspects of biology. His universal knowledge of material and literature makes him an indispensable adviser for all colleagues, and he willingly debates newly arising scientific questions.

Since the foundation of the journal *Stratigraphy and Geological Correlation* A.G. has been on the editorial board; he is deputy editor-in-chief of *Paleontological Journal*.

A.G. Ponomarenko published several books and more than a hundred articles, and presented many talks at all-Russian and international congresses. He is the main author of the electronic catalogue of fossil beetles of the world at the website of Zoological Institute, Russian Academy of Sciences (<http://www.zin.ru/Animalia/Coleoptera/rus/paleosys.htm>), where his publications on extinct beetles are also listed (<http://www.zin.ru/Animalia/Coleoptera/rus/paleolit.htm>). The list of his selected publications on various subjects is at the website of Arthropoda Lab, PIN (<http://palaeoentomolog.ru/Personnel/aponom.html>).

Even in his hobbies A.G. is on a firm scientific basis; his flower gardening has a phytogeographical bias, and his large collection of wine labels from all over the world is perfectly systematized.

Versatile, gifted, vigorous, friendly, and always cooperative, Aleksandr Georgievich is one of those people who form the basis of our Institute and our Science. All of us wish him many new achievements and successes, good health, and happiness.

Friends and colleagues