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## Zachvatkin (Jasykov), Aleksei Alekseevich

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A.A. Jasykov (Yazykov in the modern English transcription) was born on December 1, 1905, in Ekaterinburg. He spent his childhood with his parents in Montreux, Switzerland. His father came from an old noble family. According to the traditions of the Russian nobility, he received a home education with tutors in sciences and culture. Just before the beginning of World War I, the family returned to Moscow where his private home education was continued. His early interest in natural history brought him in 1920 to the State University of Moscow where he worked first in the university herbarium and then in the Zoological Museum of the university. There he specialized in entomology, particularly in the taxonomy of Cicadinae (Hemiptera: Cicadidae). After the October revolution of 1917, he could no longer officially enter the university because he was from a noble family. However, the university professors allowed him to attend some courses. His only formal education was at a painting studio in Moscow. From 1926 through 1931 he worked as a technical assistant in the Central Asian Institute of Plant Protection. Participating in numerous expeditions, he showed his great and numerous talents in research. He published several papers concerning the systematics of the Cicadinae and the parasites of the

Acridinae (Orthoptera: Acrididae). He also discovered specific features of hypermetamorphosis in the Meloidae and Bombyliidae. Restoring his lost documents, he took the surname of his stepfather. The last work by Jasykov was published in 1931, and from 1932 all his papers were signed as Zachvatkin. For a short time he worked in the All-Union Institute of Plant Protection in Leningrad, and in 1933 he was invited to the Entomological Laboratory of the Research Institute of Zoology of the State University of Moscow. Soon he began to study the Tyroglyphidae (Acarina), an important group of stored products pests, and to develop measures for damage prevention. In 1935 he received a Ph.D. degree, and in 1939 a Doctor of Biological Sciences degree. In 1941 he was appointed a professor of the Department of Entomology of the university. In addition to his applied research, he conducted fundamental research in acarology. The discovery of primitive segmented mites (Endeostigmata) and the differences in tagmosis and in the development of the fourth legs of mites from various groups allowed him to distinguish three independent groups of Acarina: Acariformes, Parasitiformes and Opilioacarina. This concept was strongly supported by V.N. Beklemishev, the leading specialist in comparative anatomy and morphology of invertebrates. Being a noted authority in general embryology and in the embryology of arthropods, he developed a theory of the origin of multicellular organisms and of the evolution of ontogenesis in lower invertebrates. He also created a new concept of the origin of Holometabola and Hemimetabola.

Many of his ideas were later confirmed in the works of his followers. He was twice awarded the Stalin Prize. In 1948, when Soviet biology was suppressed by Lysenkoism, he was forced to accept the position of the Deputy Dean of the Faculty of Biology and Pedology of the university. He became very depressed by his constant battles with Lysenko's henchmen and he passed away in Moscow on December 14, 1950. His main publications include "Tyroglyphoid mites (Tyroglyphoidea)" (1941) and "Comparative embryology of lower invertebrates" (1949). Many manuscripts and lectures were included in his posthumous book "Collected scientific works" prepared by his pupils and friends and published in 1953.

## Reference

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## Zeller, Philipp Christoph

Philipp Zeller was born at Steinheim-on-the-Mur, Württemberg, Germany, on April 8, 1808. He began collecting insects as a boy, and though he received a degree from the University of Berlin, he obtained no formal instruction in entomology. He began working at the gymnasium at Frankfort on the Oder in 1830, and devoted his leisure time to study of insects, especially the Lepidoptera, eventually becoming known as an authority on Microlepidoptera, including Pyralidae and Tineidae. He began publishing in 1833, and was named Professor by the King of Prussia in 1852. Among his important publications were "North American Micro-Lepidoptera" (1872, 1873, 1875) and "Natural history of the Tineina" (with H.T. Stainton) (1855). He named many of the economically important Microlepidoptera from around the world. Zeller died at Grunhof, Germany, on March 27, 1883.

## References

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- Essig EO (1931) *A history of entomology*. The Macmillan Company, New York, 1029 pp
- Stainton HT (1883) Philipp Christoph Zeller. *Entomol Monthly Mag* 20:1–8

## Zetterstedt, Johann Wilhelm

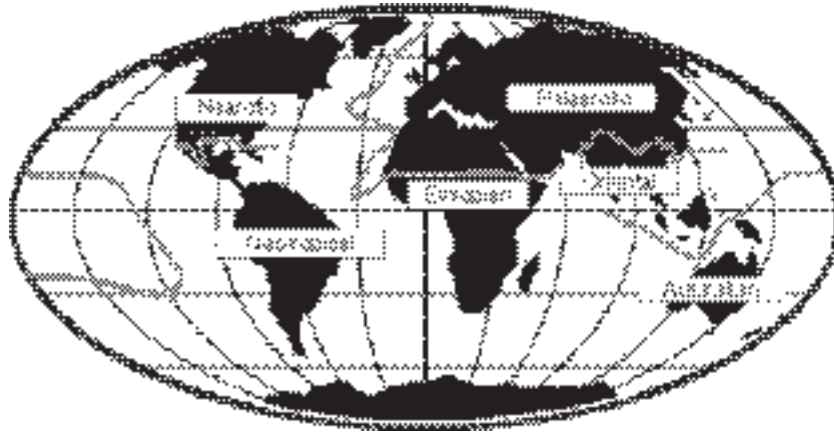
Johann Zetterstedt was born on May 20, 1785, near Mjölby, Sweden. Interested in biology from his youngest days, Zetterstedt entered Lund University in 1805, and received a doctoral degree in 1808. He was named docent in botany in 1812, but there was no salary attached to this position, so he supported himself with private lessons. In 1822, he was awarded a position at the University, and worked there until his retirement in 1853. In 1869 he received an honorary degree. Zetterstedt's list of publications is not very long, but includes some important works, including "Fauna insectorum Lapponica" (1828), "Insecta Lapponica descripta" (six issues between 1838 and 1840), and the monumental "Diptera Scandinaviae disposita et descripta" (14 volumes between 1842 and 1860). He died December 23, 1874, at Lund, Sweden.

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## Zoogeographic Realms

Dissimilar distributions of existing animals (normally illustrated by vertebrates), usually isolated geographically and defined by continents (Fig. 1), but sometimes separated by mountain ranges or other physiographic features. The principal realms are:



**Zoogeographic Realms, Figure 1** The traditional zoogeographic realms.

## Australian Realm

Australia and nearby islands, with a preponderance of marsupials, large flightless birds, and parrots, as well as an absence of mammals. This is sometimes called the Austalasian realm.

## Oriental Realm

India and southeast Asia south through Indonesia, with tree shrews, orangutan, and gibbon.

## Ethiopian Realm

Africa, though northernmost Africa is more similar to Europe (Palearctic realm), with antelopes, giraffes, elephants, rhinoceros, gorillas, dogs, and cats. This is sometimes called the African or Afro-tropical realm.

## Neotropical Realm

South and Central America including the Caribbean Islands, with sloths, armadillos, anteaters, tapirs, toucans, and hummingbirds.

## Holarctic Realm

(Nearctic and Palearctic realms) – the Holarctic realm includes most of the northern hemisphere, but is often subdivided into the Nearctic realm (North America south to central Mexico) and the Palearctic realm (Europe and Asia except for southeast Asia). The faunas of the Nearctic and Palearctic are really quite similar, with such animals as vireos, wood warblers, deer, bison and wolves.

Some authors, however, subdivide the realms further, treating separately the African island of Madagascar (Malagasy realm) and the contact area of the Australian and Oriental realms, particularly the Indonesia-Papua New Guinea area (Indo-Australian realm). The zoogeographic realms are sometimes called the biogeographic realms but this is not particularly desirable because plant distribution does not entirely conform to the regions formed by animal distribution.

► [Floristic Kingdoms](#)

## Zoogeography

The distribution of animal groups in space.

► [Zoogeographical Realms](#)

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## Zoonosis (pl. zoonoses)

Diseases of animals that may be transmitted to humans, often by arthropods.

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## Zoophagous

Feeding on animals or animal products.

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## Zopheridae

A family of beetles (order Coleoptera). They commonly are known as ironclad beetles.

▶ [Beetles](#)

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## Zoraptera

An order of insects. They commonly are known as angel insects or zorapterans.

▶ [Angel Insects](#)

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## Zorapterans

Members of the insect order Zoraptera.

▶ [Angel Insects](#)

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## Zorotypidae

A family of angel insects (order Zoraptera).

▶ [Angel Insects](#)

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## Zygaenidae

A family of moths (order Lepidoptera). They commonly are known as smoky moths and burnet moths.

▶ [Burnet Moths](#)

▶ [Butterflies and Moths](#)

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## Zygote

A fertilized egg formed as the result of the union of the male and female gametes.