

**DIRECTOR  
OF THE INSTITUTE OF SYSTEMATICS AND EVOLUTION OF ANIMALS  
OF THE POLISH ACADEMY OF SCIENCES IN KRAKOW  
AND PRINCIPAL INVESTIGATOR**

are announcing a competition for **NSC scholarships** in the SONATA 20 project

Project number: UMO-2024/55/D/ST10/01545

Title: „ Fossil record sheds new light on the evolution of Vipers, Europe's most venomous snakes”

Principal Investigator: dr hab. Georgios Georgalis (ORCID 0000-0001-7759-6146)

**Main research tasks within the framework of the research scholarship:**

This is one Master student position for 1 year focusing on the investigation and 3D imaging of the cranial and postcranial anatomy of particular species of extant vipers for this NSC project. The Master student will work on documenting in detail the skull and vertebrae (focusing also in the intracolumnar variation) for several extant species of vipers, for which so far the skeletal anatomy has been unknown. Moreover, the student is expected to get some experience and practice with fossil viper material, by working directly with some fossil specimens of vipers. The student is expected, with the guidance and supervision of the Principal Investigator of this NSC project (Dr. hab. Georgios Georgalis), to write complete anatomical descriptions and comparisons, photograph the most important specimens, and create 3D models and images of extant viper skeletons from  $\mu$ CT (micro-computed tomography scanning) data. The student will also be trained and get in depth knowledge on the skeletal anatomy of extant vipers, by using and consulting the abundant and rich collection of skeletons housed at ISEA PAS. The student is expected to publish some results of the research conducted for this project in international peer-reviewed journals. All this research is anticipated to be conducted physically at the facilities of ISEA PAS, and not remotely.

**Additional information (e.g., special requirements from the student):**

1. Interest in herpetology, palaeontology, taxonomy, and reptiles in general.
2. Excellent command of English.
3. Bachelor's degree in biology or geology. Applicants with other or interdisciplinary degrees are welcome. A bachelor's degree is not required at the time of application, but the selected candidate must have one before receiving the scholarship.
4. Experience working with fossil material and familiarity with 3D imaging and visualization are desirable.

**Working schedule:**

- Starting the scholarship: 1 May 2026.
- The student is expected to work 4 days \* 4 hours (= 16 hours) / week.
- The work will be conducted physically (and not remotely) in the facilities of ISEA PAS in Krakow.
- The scholarship period: 1 year (12 months).



ISEA PAS

**Institute of Systematics and Evolution of Animals  
Polish Academy of Sciences**



HR EXCELLENCE IN RESEARCH

**Financial conditions:**

Scholarship of 2000 PLN per month for 12 months financed by the National Science Centre, Poland (NSC) under the Sonata project entitled: "Fossil record sheds new light on the evolution of Vipers, Europe's most venomous snakes".

**List of required documents to be submitted by the candidate:**

1. Candidate's personal questionnaire.
2. Curriculum vitae (CV) containing information about studies and any scientific publications, participation in scientific conferences, and internships.
3. Candidate's cover letter (maximum 1 A4 page) describing their scientific interests and motivation for applying for a scholarship in this competition.
4. Copy or transcript of their bachelor's degree diploma.
5. Certificate from the university confirming student status.

Required application documents: cover letter and detailed CV (taking into account professional history) should include the following clause:

*"I consent to the processing of my personal data included in the application documents for the purposes of the competition for the position indicated in the announcement and held by the Institute of Systematics and Evolution of Animals of the Polish Academy of Sciences. I have been informed that my consent is voluntary and that I have the right to withdraw it at any time, and that the withdrawal of my consent shall not affect the lawfulness of the processing that was carried out on its basis prior to its withdrawal. I also declare that I have read the information clause concerning the processing of personal data in accordance with the Regulation of the European Parliament and of the Council of 27 April 2016, included in the recruitment announcement issued by the Institute of Systematics and Evolution of Animals of the Polish Academy of Sciences.*

**Application and submission process:**

The applicant should send electronically the following documents to the addresses: [rekrutacja@isez.pan.krakow.pl](mailto:rekrutacja@isez.pan.krakow.pl) and [georgalis@isez.pan.krakow.pl](mailto:georgalis@isez.pan.krakow.pl) until **17 April 2026**:

The winners of the competition will be announced by 24 April 2026.

ISEA PAS reserves the right to respond only to selected offers and to close the competition without selecting a candidate.

The competition organizer may invite candidates for an interview directly or electronically. The invitation will be sent to the e-mail address provided by the candidate in the application documents.

ISEA PAS does not provide accommodation.

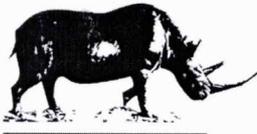
**Dr hab. Georgios Georgalis**

Principal Investigator

Dyrektor Instytutu

**Dr hab. Beata Grzywacz**

Director of the Institute



**Background information:**

Vipers represent iconic elements of herpetofaunas across most continents, including Europe. Due to their venomous bite that, for many species, can be lethal to humans and their broad geographic distribution that includes also habitats shared with dense human populations, vipers have “gained” a rather notorious reputation since centuries.

Our understanding of the evolution and the fossil record of vipers is much limited, owing to the fact that their fossil remains are mainly represented by isolated (and often fragmentary) vertebrae, with articulated skeletons and skull remains being rather rare. Moreover, identification of fossil remains can usually be rather challenging because, for the majority of extant species of vipers, the cranial and vertebral morphology is virtually unknown. This limited knowledge of their fossil record and skeletal anatomy of extant taxa, has a tremendous impact on our understanding of the emergence and evolution of modern vipers. Still though, this, currently patchy and inadequate, fossil record attests for a much greater and fascinating diversity of vipers, particularly in Europe, including extinct species and extreme size ranges, which are not observed any more among the extant forms.

This NSC SONATA project aims to provide novel insights on the palaeontology of European vipers, focusing on their fossil record, evolution, taxonomy, and skeletal anatomy. As part of it,  $\mu$ CT (micro-computed tomography scanning) technology will be used to study the skeletal anatomy of several extant viper species, based on specimens from herpetological collections; such better understanding of the skull and vertebrae of extant species will allow more confident taxonomic determinations of the fossil material and a more accurate evaluation about the phylogenetic affinities of the extinct viper taxa from Europe. All these new data will eventually permit a comprehensive approach and critical review of the European fossil record, systematics, and palaeobiogeography of vipers and thus decipher valuable information about the evolution of the most dangerous, but also among the most fascinating, snakes from our continent.