

An Introduction to the UNESCO IGCP 732 Project *LANGUAGE of the Anthropocene*

About the Anthropocene

The Anthropocene was suggested by Paul Crutzen in the year 2000 as the youngest unit of the Geological Timescale, in which geological processes and cycles are dominated by humans. Therefore, as a new geochronological epoch, it redefines the human relationship to the planet in ecological terms with consequences that are also historical, social and ethical. Recognizing and managing this novel situation in a sustainable way requires a planetary network and an accompanying knowledge framework.

About the Project

Hence the UNESCO IUGS IGCP 732 project LANGUAGE of the Anthropocene was granted in spring 2021 with the goal to bring scientists together for workshops, field trips, scientific exchange and to come up with new ideas about the Anthropocene concept but also to enable international cooperation in geosciences, especially with the contributions of scientists from developing and less developed countries.

Since the project has been started, more than 85 scientists from 28 countries have already become members of IGCP 732 (with more than 50% from developing countries). In 2022, a workshop in Nairobi, Kenya, is planned, focusing on an African perspective on the Anthropocene.

In addition, IGCP 732 is also linked to the Anthropocene Working Group (AWG) of the Subcommission on Quaternary Stratigraphy, which is part of the International Commission on Stratigraphy (ICS).



Sampling plastics along the Nairobi River. ©Lydia Olaka

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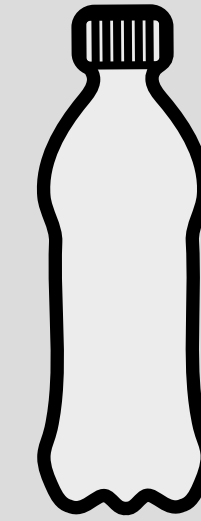


Hi, I'm **Mehwish BIBI**

My research interests are the Anthropocene, geochemistry, climate change and ecotoxicology.

Within the project, my focus will be on anthropogenic contamination in the environmental archives of Pakistan by assessing different markers for the Anthropocene by using a multi-disciplinary approach.

Did you know, that plastics and other technofossils could be used as auxiliary markers of the Anthropocene? ¹



Hi, I'm **Catherine RUSSELL**

I am presently affiliated with the University of Leicester and Louisiana State University.

My expertise is in the development of innovative multi-disciplinary approaches for analysis of the composition and architecture of rivers, because river behaviour is affected by climate, vegetation, water and sediment type and volume, as well as human intervention.

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Hi, I'm **Barbara FIATKIEWICZ-KOZIEŁ**

I am an environmental geochemist, using peat as environmental medium to assess the level of past pollution.

My focus is on the determination of global patterns of deposition of geochemical and mineralogical proxies in different peatlands of the Northern Hemisphere. Their application to define the Anthropocene will be assessed.

Did you know, that the Great Acceleration of the mid 20th century also provides a pronounced signal of the Anthropocene? ²



Hi, I'm **Maria Luisa TEJADA**

I am an igneous petrologist and geochemist by specialization at the University of Hawaii, USA.

Together with my colleagues at the University of the Philippines, we will utilize our combined expertise in geochemistry, microfossils and marine biogeochemistry to assess the issues related to marine ecosystems degradation in the Philippines because of human activities.

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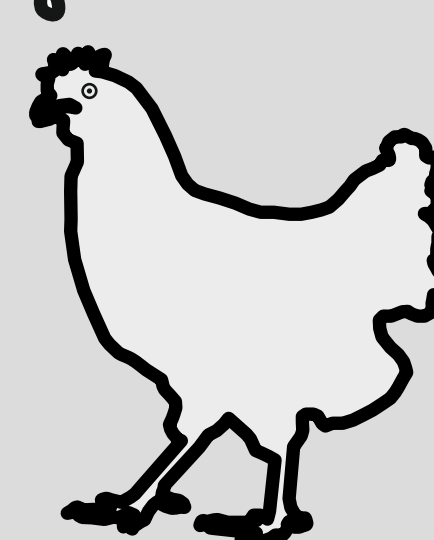


Hi, I'm **Juliana IVAR DO SUL**

I am a researcher working at complementary aspects of (micro)plastic pollution in the environment. I have been exploring environmental fates of plastics in the sea for many years.

Now I focus on plastics and microplastics potential as markers of the Anthropocene epoch, still to be formalized in the geological time scale.

Did you know, that the domestic broiler chicken symbolizes the human reconfiguration of the Earth's biosphere during the Anthropocene? ³



Hi, I'm **Michael WAGREICH**

As Professor for Geology at the University of Vienna, Austria, I teach and do scientific research in the fields of sedimentology and stratigraphy.

As a stratigrapher with interest in paleoclimate and events, I became interested in the Anthropocene, especially in the geological and stratigraphic definition of this potential new unit of the Geological Timescale and the anthropogenic Earth System changes.

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Hi, I'm **Lydia OLAKA**

I am a senior lecturer at the Department of Earth and Climate sciences, University of Nairobi, Kenya.

My research is centered around understanding changes in surface and groundwater resources, (pollution, climate change, anthropogenic activities) and is committed to applying geosciences and geospatial analysis techniques to understand and solve societal problems.

Did you know, that radionuclide fallout signals, the so-called bomb-spike of the 1950-1960s (²³⁹Pu), might become a marker of the start of the Anthropocene? ⁴



Hi, I'm **Luyuan ZHANG**

As associate Professor, I am doing environmental and geological research at the Institute of Earth Environment Chinese Academy of Sciences (IEECAS).

This project is a great opportunity to combine geology, environmental science, radiochemistry and nuclear science together to define and illustrate the Anthropocene concept and its profound impacts from multi-disciplinary angle.

1 Waters C.N. et al. (2016): The Anthropocene is functionally and stratigraphically distinct from the Holocene. *Science*. Jan 8: 351. doi: 10.1126/science.aad2622.

2 Zalasiewicz J. et al. (2015): When did the Anthropocene begin? A mid-twentieth century boundary level is stratigraphically optimal. *Quat. Int.* 383, 196–203. doi: 10.1016/j.quaint.2014.11.045

3 Bennett C.E. et al. (2018): The broiler chicken as a signal of a human reconfigured biosphere. *R. Soc. open sci.* 5: 180325. doi: 10.1098/rsos.180325

4 Waters C.N. et al. (2018): Global Boundary Stratotype Section and Point (GSSP) for the Anthropocene Series: Where and how to look for potential candidates. *Earth-Sci. Rev.* 178: 379–429. doi: 10.1016/j.earscirev.2017.12.016

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