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| | Experiment title: The evolutionary origin of metamorphosis in tetrapods: clues from palatal osteohistology in temnospondyls | Experiment number: LS-3109 |
| Beamline: BM18 | Date of experiment: from: 26.10.2022 to: 29.10.2022 | Date of report: 9.3.2023 |
| Shifts: 9 | Local contact(s): Kathleen Dollman, Vincent Fernandez | <i>Received at ESRF:</i> 10.3.2023 |
| Names and affiliations of applicants (* indicates experimentalists): Pérez, Celeste Marina* . Museum für Naturkunde, Leibniz Institute for Evolution and Biodiversity Science, Berlin, Germany Anne-Claire Fabre* . Naturhistorisches Museum Bern, Bern, Switzerland; Institute of Ecology and Evolution, University of Bern, Bern, Switzerland; Life Sciences Department, Vertebrates Division, Natural History Museum, London, United Kingdom Donald Davesne* . Museum für Naturkunde, Leibniz Institute for Evolution and Biodiversity Science, Berlin, Germany Nadia Fröbisch . Museum für Naturkunde, Leibniz Institute for Evolution and Biodiversity Science, Berlin, Germany; Humboldt-Universität zu Berlin, Berlin, Germany | | |

Report:

During the nine shifts, we could scan 19 salamander specimens and four fossil temnospondyls. Scans at 4.2 μ m and 0.85 μ m were made.

The scanning of the salamanders took us longer than expected because we had problems finding the regions of interest (ROIs) for the scans at 0.85 μ m, which required us to perform numerous test scans. Because of this delay, we were not able to scan all the fossils that are essential for the project. Therefore, one of us (C.P.) returned to the ESRF in December 2022 to successfully complete the remaining scans in three shifts (experiment IH-LS-3441).

To date, the processed scans are still unavailable, so we have not been able to properly evaluate whether the data collected at the ESRF will allow us to answer the research questions detailed in the proposal. However, preliminary reconstructions made during the scanning at the ESRF look promising; at 0.85 μ m we could see histological features in the extant specimens and confirm that the preservation of most fossils was good at the histological level.