**Comparative actualistic study hints at origins of intriguing Miocene “coprolites” of Poland**

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Supplementary Information

Supplementary Table1. List of taxa of observed fish excrements. Fossil representatives taken from1.

|  |  |
| --- | --- |
| **modern fish** | **fossil representative** |
| *Aspius sp.* | *Aspius* sp., *Aspius* *laubei*, *Barbus* sp., *Barbus* *bohemicus* |
| *Leuciscus sp.* | *Palaeoleuciscus* sp., *Palaeoleuciscus* *chartacerus* |
| *Tinca sp.* | *Palaeotinca* sp., *Palaeotinca* *egeriana*, *Palaeotinca* *obtruncata* |

Supplementary Table 2. List of taxa of observed amphibian excrements. Fossil representatives taken from1.

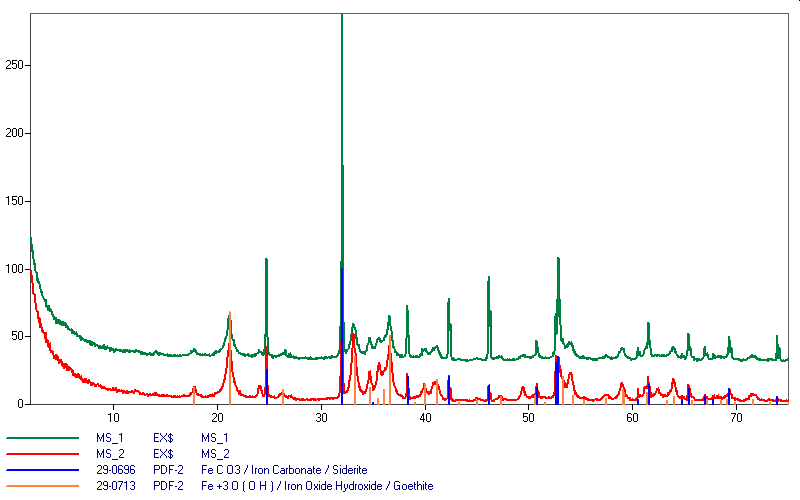
|  |  |
| --- | --- |
| **modern amphibians** | **fossil representative** |
| *Andrias* sp. | *Andrias* *bohemicus, Andrias* cf. *scheuchzeri, Chelotriton* cf. *paradoxus* |

Supplementary Table 3. List of taxa of observed bird excrements. Fossil representatives taken from1.

|  |  |
| --- | --- |
| **modern birds** | **fossil representative** |
| *Phalacrocorax sp.* | *Nectornis* sp., *Phalacrocorax* *littoraris* |
| Strigiformes indet. | *Prosybris antiqua*, *Mioglaux debellatrix*,  *Intulula tinnipara* |
| *Aquila* sp. | *Polemaetus* sp. |
| *Accipiter sp.* | Accipitridae indet. |

Supplementary Table 4. List of taxa of observed mammals excrements. Fossil representatives taken from1.

|  |  |
| --- | --- |
| **modern mammals** | **fossil representative** |
| *Ursus sp.* | *Ursavus* *elmensis, Ursavus* *isorei, Tomocyon* sp., *Hemicyon* cf. *stehlini*, *Amphicyon* *bohemicus*, *Amphicyon major*, *Megamphicyon* *giganteus*, *Cynelos* *schlosseri* |
| Rhinocerotidae indet. | *Mesaceratherium* aff. *paulhiacense*, *Prosantorhinus* *laubei*, *Protaceratherium* *minutum* |
| *Cervus sp.* | *Procervulus* cf. *praelucidus* |
| Equidae indet. | *Anchitherium* *aurelianense* |



Supplementary Figure 1. XRD diffractograms for two coprolite morphotypes. Green line – morphotype 1, red line – morphotype 2.

Supplementary Movie 1. Tomographic animation of Miocene coprolite from Turów.

**References**

1. Dvořák, Z., Mach K., Prokop, J. & Knor, S. Třetihorní fauna severočeské hnědouhelné pávne, 1-175 (Granit Publishing House, 2010).