GEOPARK



Saurian Discovery Trail Georgenthal & Tambach-Dietharz Guide for GeoRoute (6)



# Enjoy the **SAURIAN DISCOVERY TRAIL** and visit our **GEO-INFO**CENTRES **I**!



www.thueringer-geopark.de



Note: The general map of the GeoRoute is not suitable as a trail map. Trail maps can be purchased in the tourist information.

### In the kingdom of the sauria

Take a journey through 100 million years of Earth history and discover the remains of a multitude of unique creatures - nearly all of whom lived in Thuringia!

Here you can be a direct witness of saurian evolution.

The trail boasts unique and globally significant saurian fossils such as the Dimetrodon (Fig. 6).

#### GeoRoute:

From Georgenthal to Bromacker: with audioguide Distance: approx. 4.5 km. duration: approx. 2.5 hrs

From Bromacker to Tambach-Dietharz: Distance: approx. 3 km, duration: approx. 1.5 hrs

Difficulty: easy, family-friendly

Start: Tourist-Information Georgenthal, Lohmühlenmuseum or Lutherkirche in Tambach-Dietharz

#### Getting there by bus:

Mon-Fri: Line 850 (bus stop Georgenthal-village, Rodebachmühle, Lohmühle, Tambach-Dietharz; Bahnhofstrasse, Hauptstrasse)

Mon-Sun: Line 851 (bus stop Querweg, Georgenthal-Ort, Rodebachmühle, Lohmühle, Tambach-Dietharz: Bahnhofstrasse, Hauptstrasse)

Timetable information: www.vmt-thueringen.de



### We look forward to seeing you!

Guided walking tours with a certified GeoPark-guide can be booked at both tourist information offices. On offer is also a special tour for school classes including a Sauria Quiz.

#### Contact:

#### **Tourist-Information Georgenthal**

im Bürgerhaus "Thüringer Wald", Bahnhofstr. 8. 99887 Georgenthal Tel.: 036253-469755, E-Mail: info@georgenthal.de www.georgenthal.de

Tourist-Information Tambach-Dietharz 99897 Tambach-Dietharz. Burgstallstr. 31a, Tel.: 036252-34428, E-Mail: tourismus@tambach-dietharz.de, www.tambach-dietharz.de

#### GeoPark-Office Friedrichroda

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#### Imprint:

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**Town Tambach-Dietharz** 

Tambach-



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Overview map: © mr-kartographie Gotha

mr-kartographie

Sauria models: preparator Martin Kroniger

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# Welcome to Pangaea

The word sauria conjures up images of the giant Jurassic and Cretaceous dinosaurs. However sauria (from the Greek word σαῦρος (sauros) - "lizard", "Salamander") is the collective name for all reptiles and amphibians and their predecessors.

Thuringia is the land of saurians! The first ever described saurian fossil, Protorosaurus (fig. 8), was already found in 1706 in a copper shale mine at the edge of the Thuringian Forest. Back then it was thought to be a petrified crocodile (SPENER 1710).

The first scientifically identified saurian trace of the hand beast Chirotherium (KAUPP 1835) (fig. 9) and one of the first large carnivorous dinosaurs Liliensternus (fig. 7) were all found in Thuringia.



The Bromacker Quarry between Tambach-Dietharz and Georgenthal is a globally unique saurian fossil site (fig. 1). The fossil bearing layers were deposited during the Lower Permian also known as the Rotliegend – nearly 100 million years before the appearance of the giant dinosaurs.

The Bromacker locality is the only place in the world (fig. 1) where palaeontologists have excavated both the traces and the corresponding complete skeletons such as the tetrapod Orobates papsti (figs. 2 and 4) and its trace Ichniotherium sphaerodactylum (fig. 3).

The animals collectively known as tetrapods are rather small. Some were still amphibians, requiring water for reproduction. Other had already developed eggs with an eggshell membrane, which could be laid on land. Since the discovery of the first bone by Dr. Thomas Martens (former curator of the geological collection in the Natural History Museum of Gotha) in 1974, at least 13 different tetrapod species have been found in scientific excavations (e.g. fig. 10) at the Bromacker locality, including ancient predecessors of the mammals.



The most famous fossil from Bromacker Quarry is the "Tambach lovers", two tetrapods "united in death forever". These animals belong to the species Seymouria sanjuanensis (fig. 5), which up to then were only found in North America. This is possible because the Atlantic did not exist yet and Europe and America were still connected. Alfred Wegener, the originator of the continental drift theory named this supercontinent Pangaea ("All-Lands").

The history of the early terrestrial species until the rise of the dinosaurs took place on Pangaea with Thuringia right in the middle.

## **GeoRoute 6** The Saurian-**Discovery Trail**

starts in Georgenthal and Tambach-Dietharz and ends at the Bromacker fossil locality near the Lohmühlenmuseum. The 4.5 km long section between Georgenthal and the Lohmühle Mill takes you on a journey through 100 million years of Earth history. From the Lower Jurassic and Late Triassic dinosaurs to the aquatic Sauropterygia of the Middle Permian and the hand beasts of the Lower Triassic, the trail takes you to the Lower Permian tetrapod locality Bromacker. A Kids Audio Guide is available.



### Timetable of the geological development of the Geopark

Come and discover these saurians from the following epochs on the Saurian Discovery Trail:





The new GeoRoute section between Bromacker and Tambach-Dietharz (3 km) was created in 2017. Six stations describe the exciting work of the palaeontologists from the excavation and preparation of fossils up to the reconstruction of the extinct animals:



#### How it all started

First trace fossil found in 1887 and the first bones found at the Bromacker locality in 1974

#### Trace fossils and how they are formed

How are the traces that were once left on soft sediments preserved as fossils?

#### White bones in a red rock

Since the first discovery of tetrapod bones in 1974, over 50 skeletons and partial skeletons have been found to date

#### A skeleton sees the light

After excavating the fossils they need to be cleaned by a preparator

Bone by bone – from preparation to skeleton reconstruction

Straightening out the flattened skele



From the skeleton to the life-like model the reconstruction of a tetrapod

#### Places to eat along the Saurian Discovery Trail

#### "Zur Lohmühle"/ museum premises

Lohmühle 1-5, 99887 Georgenthal Phone: 036252-46000, closed Mon + Thu (Except: Holidays in Thuringia - open Thu) www.lohmuehle.info

#### Hotel Rodebachmühle mit Gaststätte

Rodebachmühle 1. 99887 Georgenthal Phone: 036253-340 www.rodebachmuehle.de

#### Grill- und Bratstuben in the old railway station

Bahnhofstraße 94, 99887 Georgenthal Telefon: 036253-42467, täglich geöffnet

#### Hotel Deutscher Hof

St.-Georg-Str. 2, 99887 Georgenthal Phone: 036253-42467, open daily www.deutscher-hof-thueringen.de

#### Schloss Café Georgenthal

Schlossplatz 1a, 99887 Georgenthal Phone: 036253-29878, Mobile: 0177-8991391

#### Landhaus Falkenstein

Bahnhofstr. 14, 99897 Tambach-Dietharz Phone: 036252-489550 www.landhaus-falkenstein.de

#### Inn "Thüringer Wald"

Bahnhofstr, 32, 99897 Tambach-Dietharz Phone: 036252-36305

#### Holiday park & Restaurant "Sonnenhof"

An der Burg 15, 99897 Tambach-Dietharz Phone: 0152-56197583 www.ferienpark-tambach-dietharz.de

#### **Pinguin-Ice bar**

Spitterstr. 28, 99897 Tambach-Dietharz Phone: 036252-36734 www.pinguineiscafe.de



