



GEOPARK RIES
Europe's Giant Meteorite Crater

Hiking on the Ries Panorama Trail



**Geopark Ries Hiking Trail
encircling the Meteorite Crater**



www.geopark-ries.de

Ries Panorama Trail



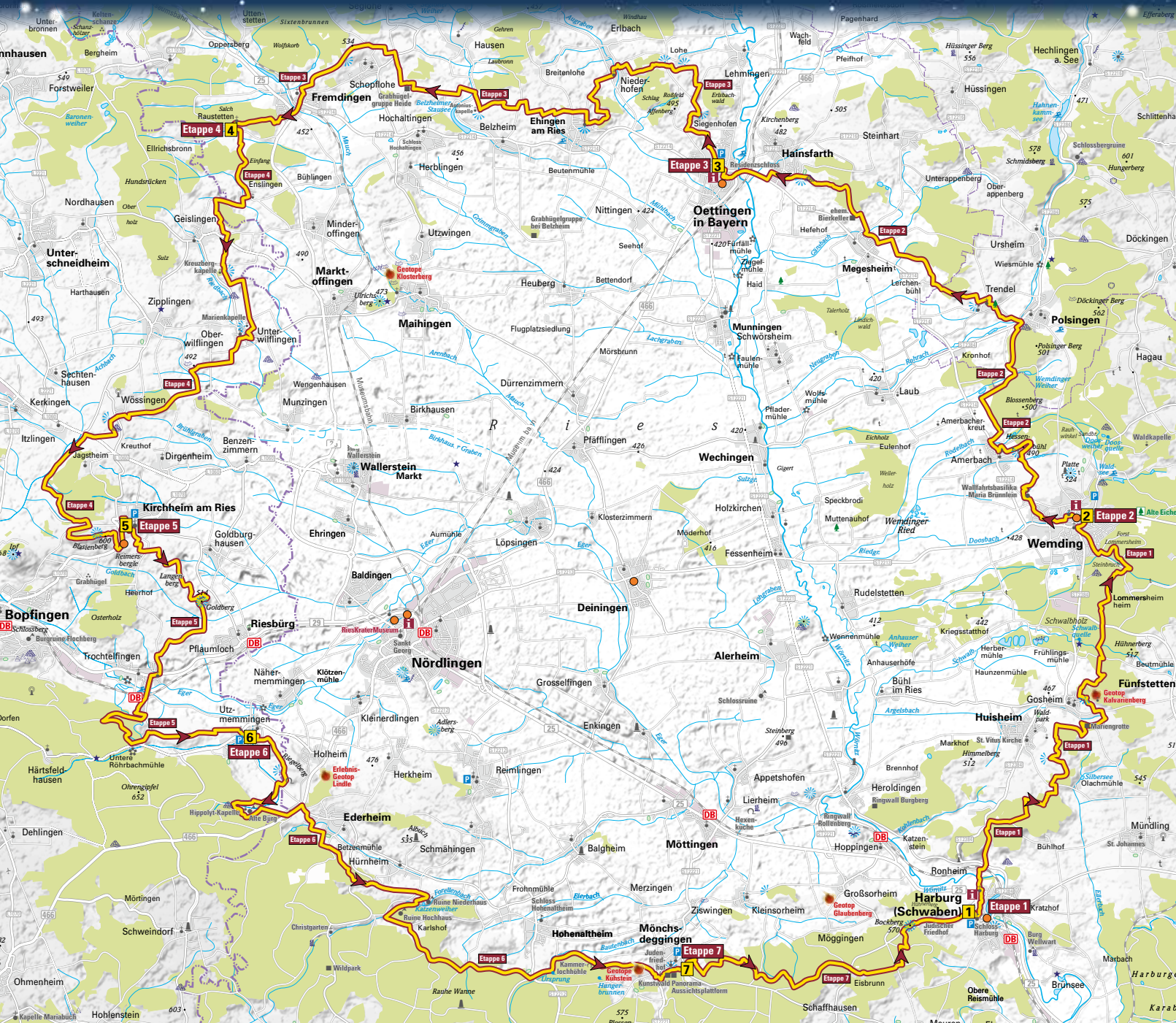
GEOPARK RIES
Europe's Giant Meteorite Crater

Contents

- 4 UNESCO Global Geopark Ries
- 6 Formation and special features of the Ries
- 8 Structures of the Ries Crater
- 10 Themed hiking in the UNESCO Global Geopark Ries
- 11 Signs on the themed hiking trails
- 12 **Stage 1:**
From Harburg to Wemding
- 16 **Stage 2:**
From Wemding to Oettingen
- 20 **Stage 3:**
From Oettingen to Raustetten
- 24 **Stage 4:**
From Raustetten to Kirchheim am Ries
- 28 **Stage 5:**
From Kirchheim to Utzmemmingen
- 32 **Stage 6:**
From Utzmemmingen to Mönchsdeggingen
- 36 **Stage 7:**
From Mönchsdeggingen to Harburg
- 40 Ferienland DONAURIEN
(Tourist Association DonauRies)
- 43 Imprint

Legend

- Ries Panorama Trail
- Geopark Info-Center/-Point
- Direction of trail
- Geopark Info-panel
- Stage starting point
- Geopark Adventure Geotope
- Tourist information
- Geopark feature
- Train station
- Vantage point
- Church/monastery



UNESCO Global Geopark Ries



The UNESCO Global Geopark Ries has an area of about 1,750 km². The larger part (83 %) is in Bavaria, the smaller part belongs to Baden-Württemberg. In total, five districts with 53 municipalities are involved. The Geopark Ries encompasses the meteorite crater itself as well as areas in which ejecta masses are found even today.

The Ries Crater is one of the best preserved and best researched impact craters on Earth. Because of this very special status—and the work of the Geopark Ries e.V. for sustainable regional development—the Geopark Ries was named a UNESCO Global Geopark in 2022.



The Ries Crater is a first-class geological feature. As such, it has a magnetic effect not only on geologists. A large and steadily growing number of geo-tourists, school groups, interested day trippers, hikers and cyclists from all over the world also visit the Geopark Ries in search of traces of the cosmic catastrophe.

The asteroid impact about 15 million years ago had a fundamental and determinative influence on the landscape and character of the geological underground that continues to this day. The UNESCO Global Geopark Ries makes these geological and geomorphological processes and their far-reaching consequences visible and tangible.

At many places visitors can understand what effect geology has on the formation of soils and habitats, why dry-grassland biotopes formed on the crater rim, which factors prompted early inhabitants to settle in the crater basin as early as the Stone Age, and why the Ries Crater is still one of Bavaria's breadbaskets today.

The Geopark Ries directs the attention of residents and guests to ecological features as well as to natural and cultural treasures and, in this way, encourages respectful interaction with the unique heritage. The Geopark's most important tasks are to make the geological heritage accessible to locals and visitors and to promote science and education for sustainable development.

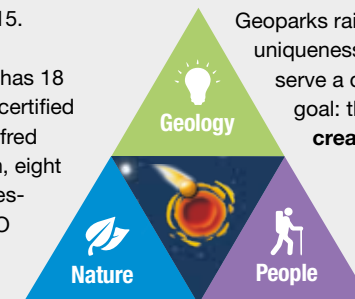
Geoparks – A worldwide trend

The protection of unique biotopes has been common in Germany for some time now. Often geosites are also included. Geological features and their protection have been increasingly appreciated in their own right since the late 1990s. The designation of geoparks is on the rise worldwide: UNESCO even started a “Global Geopark Network” and has awarded the UNESCO Global Geopark label since 2015.

Germany presently has 18 National Geoparks certified by the GeoUnion Alfred Wegener Foundation, eight of which are also designated by UNESCO as UNESCO Global Geoparks.

Geoparks are areas with exceptional geology and contain geological places of interest (called geosites or geotopes) of particular scientific importance, rarity or beauty. The goal is to provide visitors with knowledge about how our Earth was formed, which geological processes shaped it and how geological and geomorphological processes affect habitats.

Geoparks raise awareness of the uniqueness of the Earth and serve a declared UNESCO goal: the **preservation of creation.**

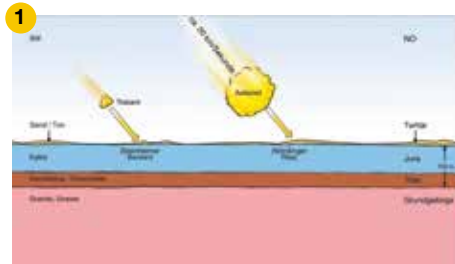


Formation and special features of the Ries

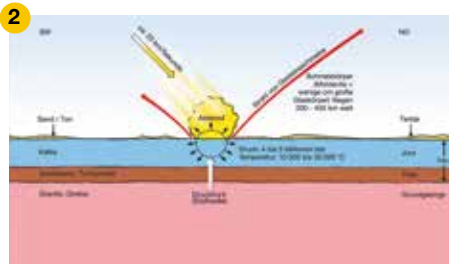
A cosmic catastrophe

About 15 million years ago: An asteroid about a kilometer in size races towards Earth at over **70,000 km/h**. When it crashes into the Alb highlands, it tears a **4.5-kilometer deep hole** in the Earth's surface—and today's Ries Crater begins to form. Huge chunks of rock are thrown through the air, rock debris (*Trümmermassen*) flies as far away as 50 kilometers.

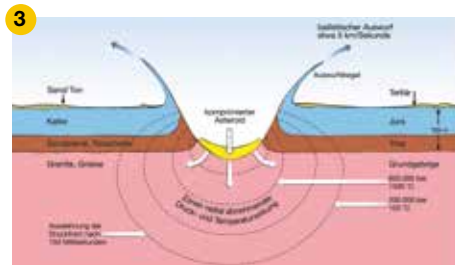
The impact results in a pressure of several million bar units and a temperature of more than **20,000 °C** – the energy released equals the explosion of several hundred thousand Hiroshima-size bombs. Even diamonds and other high-pressure minerals are formed by the shockwave.



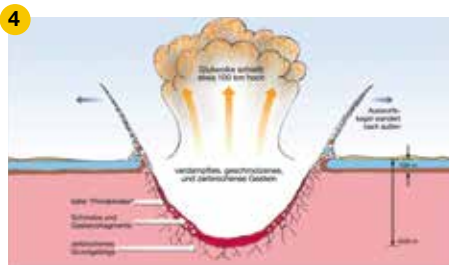
35 milliseconds before impact



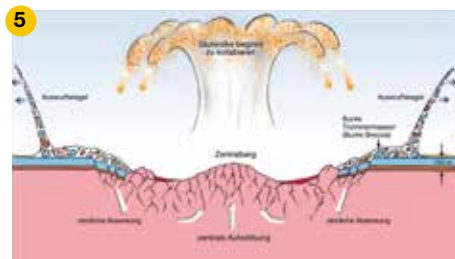
10 milliseconds after impact



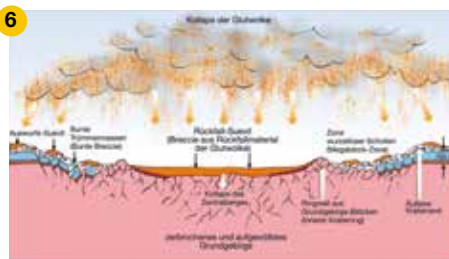
Start of crater formation after 60 milliseconds



Formation of a deep "transient" crater after about 10 seconds



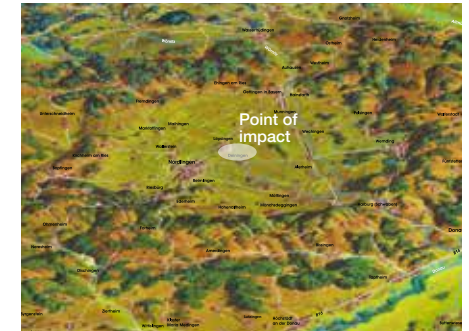
Collapse of the "transient" crater and deposition of ejected rock masses after about 1 minute



End of crater formation and deposition of Suevite after 10 minutes

The Ries Crater

The flat, largely unwooded and densely populated crater basin, with its **25-kilometer diameter** and up to **150-meter high outer crater rim**, is very visible in the landscape. In the UNESCO Global Geopark Ries you can explore how the impact of the asteroid about **15 million years** ago radically reshaped the landscape and how this event still shapes the region today.



The crater basin and rim are very identifiable in the landscape. This geomorphological structure of the Earth's surface is a unique feature of the UNESCO Global Geopark Ries.

Special rocks



Suevite from the Otting quarry.

The **impact of the celestial body** created a glowing cloud of vaporized and molten rock, glass "bombs" and melted fragments of crystalline basement rock. The glowing cloud ultimately collapsed and settled over the landscape destroyed by the impact. The resulting rock is named **Suevite** or "**Schwabenstein**" (translated as "Swabian stone" from the Latin *suevia* = Swabia) .

The asteroid's impact also shattered (in geology: brecciated) rock in formations at various depths and hurled it out of the crater. In the process, chunks of the most varied sizes were swirled together and chaotically deposited. Due to the fragments' different colors, the ejecta masses appear colorful (in German: *bunt*), hence the names **Bunte Trümmermassen** (rock debris including blocks) and finer-grained **Bunte Breccia**. The proportion of the various rock fragments, as well as their grain size which **ranges from fine dust up to kilometer-sized blocks**, varies widely from place to place.



Bunte Breccia from the Harburg-Ronheim quarry.



The Ries Panorama Trail runs mostly in the area of the meteorite crater's outer rim with its elevations up to 150 meter high. It offers fascinating views over and in the crater.

Inner crater ring

The Ries Crater is a "complex" impact crater with an inner ring. Here crystalline basement rock from more than **600 meters deep was upheaved and ejected into a ring** through the forces of the asteroid impact (see impact graphics on page 6). The ring "wall" of granites, gneisses and amphibolites has a **diameter of about twelve kilometers** and represents the rim of the primary crater, which was temporarily **four to five kilometers deep** (impact graphic 4). This inner crater ring is still clearly visible today as a

circle of distinctive elevations in the Ries plain (such as the Wallerstein cliff, Marienhöhe, Adlersberg, Wennenberg). The crystalline rock of the inner crater ring belongs to the 300- to 600-million year-old Variscan basement (Moldanubicum), which still lies today on the Earth's surface in the Bavarian and Bohemian Forest and in the Black Forest. Hence the Nördlinger Ries provides a **unique surface exposure between these two mountain massifs.**

Megablock zone

The megablock zone lies between the inner crater ring and the outer crater rim. It is part of the Ries Crater's ejecta blanket that is also termed **Bunte Trümmersmassen (rock debris including blocks) or Bunte Breccia**. The rock debris was hurled outwards from the center by the enormous forces of the asteroid impact. But some megablocks also slid inwards to some extent. The nonlocal (allochthonous) blocks of the megablock zone originate predominantly from the younger **Jurassic and Triassic sedimentary**

rock, which was closer to the surface before the impact, but also from the **crystalline basement** (see page 6). The sizes of the blocks range from more than a kilometer in diameter in the megablock zone and decrease with increasing distance from the crater center. As a rule, megablocks, especially Upper-Jurassic limestone, are **intensely shattered ("mortar texture")** and are then referred to as "monomict **limestone breccia.**"

Outer crater rim

The Ries Panorama Trail runs mostly in the area of the meteorite crater's outer rim and offers fascinating views over and into the crater. The outer crater rim borders the depression formed by the Ries impact. It is particularly clearly formed in the southern region; its highest elevations are higher than **600 meters above sea level** there.

Yet the ejected *Trümmersmassen* and other impact rocks like Suevite overlaid the existing geology for many kilometers beyond the outer crater rim. Therefore, the area of the Geopark Ries is much larger than the actual meteorite crater.

Themed hiking trails

in the UNESCO Global Geopark Ries

The Geopark Ries is a wonderful place to hike. **An extensive network of trails reveals the charm of this extraordinary landscape:** lush vegetation in the crater basin and sparse, dry, heath grasslands on the crater rim. Long-distance hiking trails show the unique Ries landscape. Geopark Ries themed trails link geological, settlement- and natural-history features, providing helpful information on panels along the way.

Regard for nature

The hiking trails lead through **near-natural landscapes** and partly through protected areas of special flora and fauna. **So, please stay on the marked paths, keep dogs on leashes and do not pick or disturb plants in the protected areas and biotopes.**

Recommendations for hiking

On our hiking trails, you are on near-natural paths for long stretches; a convenient stop for facilities is not always possible. When preparing for a tour, therefore, you should consider sufficient liquids, hiking shoes and socks, tissues, sun and rain protection, a trash bag, possibly insect repellent and – in case of emergency – a cell phone.



Signs

Our themed hiking trails provide information about **geology, landscape, nature and settlement history.**

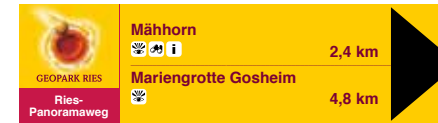
Trail signs

The Geopark hiking trails are marked end-to-end.



Info signs

In addition, there are often signs pointing out side trips or highlighting vantage points



Ground markings

Markings on forest paths, streets and trees supplement the trail signs.



Panorama panels

Along the way, panorama panels explain the respective view.



Info panels

Informative as well as scientifically prepared panels provide information about landscape, geology, nature, history and culture along the trails. Color codes show the topic of the information provided.

- Geological feature
- Landscape feature
- Settlement history, archeological and cultural history site, ground monument
- Museum
- Church/monastery
- Vantage point





Stage 1

From historical castles to agricultural history

- Stage 1** - Harburg (Unterer Burgparkplatz) to Wemding (Marktplatz)
- Starting point:** Unterer Burgparkplatz, Burgstraße, 86655 Harburg (N48°47'04.6", E10°41'02.9" / 48.78461 10.68414)
- Length:** 18.3 km
- Hiking time:** 5.00 hrs
- Elevation difference:** 430 m ascent, 430 m descent
- Character of the stage:** mainly on forest and hiking paths, longer shady stretches



From “Unterer Burgparkplatz“ in Harburg the trail leads along idyllic paths down into the charming old town to the market square with **historical fountain**.

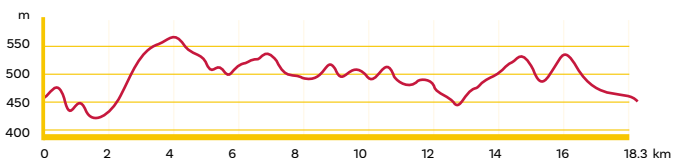


The **Harburg Castle**, whose history dates back to the 11th century, sits majestically on a cliff above the town. Striking landscape formations line the course of the river Wörnitz – the only body of flowing water that drains the Ries. The route leads over species-rich dry grasslands to the **Mähhorn** above Huisheim, which offers a magnificent view of the entire Ries.

At the **Geotope Kalvarienberg Gosheim**, a quarry offers insights into the geology of the eastern crater rim. Cross the **Schwalbtal** (valley) through forests and hike along above the **Wemding**

quarry. Especially appealing to children, the Wemding *Walderlebnispfad* (woodland-experience path) brightens up the end of the stage with puzzles and information about the forest and its inhabitants. The first stage ends at the tourist-information office with the nearby Geopark Info-Point Wemding.

Elevation profile:



The Wörnitz has created a transverse valley here at the intersection of the Swabian and Franconian Alb, and the river is bordered by distinctive rock formations of the crater rim. Built by the noble Staufer family at this special site on a block of the crater rim, the Harburg castle was first mentioned in the year 1150.



Harburg

- a site to remember

Stage highlights

Harburg Castle

The former Staufer fortress is one of the largest, oldest and best preserved castle complexes in southern Germany.

Mähhorn

Offering a panoramic view over the Ries Crater, this heathland hill is home to rare plants and animals.



Geopark Ries Geotope Kalvarienberg Gosheim

Transported to the crater rim during the impact, this overturned Upper-Jurassic block is crowned with a chapel and offers a panoramic view and Stations of the Cross.

Schwalbtal

Due to the slopes along the rim of the Ries Crater, there are many mills in the Schwalbtal (valley).

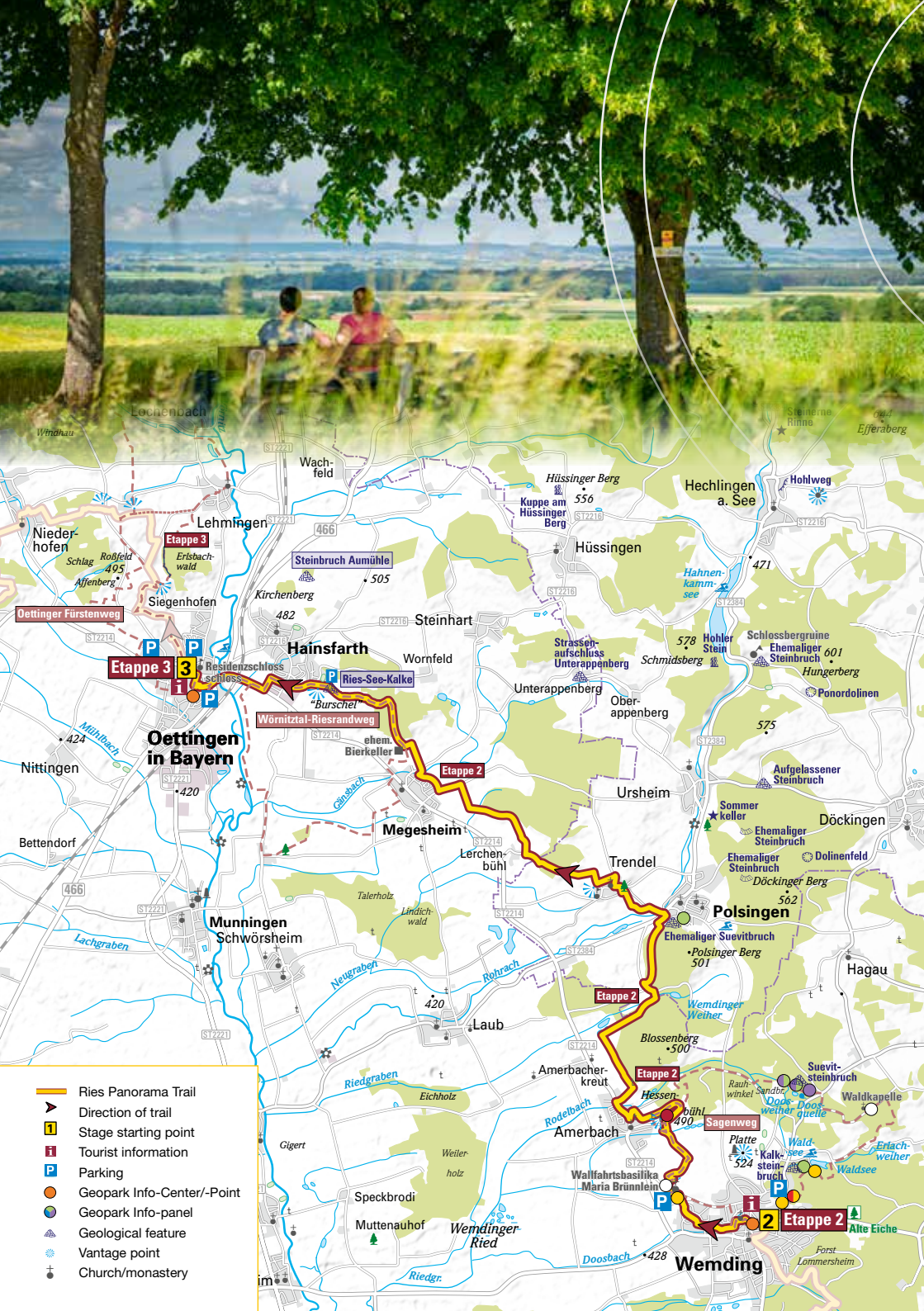
Town-history fountain

Sculpted in bronze, the fountain portrays the history of Harburg.


Wemding quarry


Limestone excavation from nonlocal, Upper-Jurassic blocks that slid from the crater rim and were transported toward the crater center during the impact process.





Stage 2 From old-town Wemding to noble-residence town Oettingen in Bayern

 **Stage 2 - Wemding (Stadtgraben = town moat) to Oettingen (Parkplatz Friedhof = cemetery parking)**

 **Starting point:** Kapuzinergraben 5, 86650 Wemding (N48°52'24.9" E10°43'36.2" / 48.87358 10.72672)

 **Length:** 20.5 km

 **Hiking time:** 5.15 hrs

 **Elevation difference:** 275 m ascent, 285 m descent

 **Character of the stage:** mainly on country lanes, partly on forest and hiking paths, longer sunny stretches

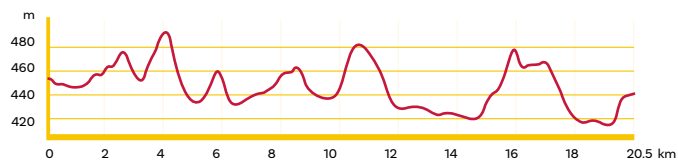
The second stage of the Ries Panorama Trail leads from Wemding's old town to the **pilgrimage church Maria Brünlein**, which was awarded the rank of basilica in 1998 and is one of the most visited pilgrimage sites in Bavaria. A panorama panel at the top of the **Hessenbühl** clarifies the magnificent view of the entire Ries with crater rim.

An **outcrop (former quarry)** in Central-Franconian Polsingen reveals a reddish, vesicular (with small cavities) rock with crystalline inclusions. It is an **impact-melt breccia** that was formed during the asteroid impact. In the past it was locally and informally called "red Suevite."

On the way towards Megesheim, panoramic views over the crater appear once again. It is well worth taking a short detour near Hainsfarth's *Sportplatz* (athletic fields) to the **Ries-lake limestone on Burschel**. Formed by green algae, the limestone walls here chronicle the Ries lake that had filled the crater. In Oettingen, hidden walkways lead to the **Schlossstraße** (Castle Street), well worth seeing to admire half-timbered buildings and historical architecture.



Elevation profile:



Bavarian country
town

Wemding

The place name ending in “-ing” is characteristic of the Ries; it indicates the early affiliation with Bavaria. In 1467 the then rural town of Wemding became part of the Duchy of Bavaria. The agrarian influences on the town are still apparent today in several houses. Tanners used to clean the hides at the *Häutbachturm*—hence the name of the tower, literally translated as “hide stream tower”—before hanging them on the lattices of the town wall to dry,



Stage highlights

Pilgrimage church Maria Brunnlein

Visible from afar, the pilgrimage basilica, newly erected in the 18th century, stands on a block moved during the impact event.

Hessenbühl

A panorama panel at the Mariengrotte (Maria grotto) explains the view.

Outcrop impact-melt breccia (Polsingen)

Formerly identified as red Suevite, impact-melt breccia formed during Ries event.



Ries-lake limestone on Burschel Hainsfarth

Layers with fillings of mini-fossils in between can also be seen in this limestone built up from calcified algae reefs.



Schlossstraße Oettingen

The half-timbered houses on the western (formerly Catholic) side of the street and the Baroque buildings on the eastern (formerly Protestant) side recall the division of the county of Oettingen.



Geopark Ries Info-Center Oettingen

In the Oettingen *Rathaus* (town hall). With numerous exhibits and display panels, as well as a model of the meteorite crater, the Info-Center explains the eventful history of the Geopark Ries and the settlement of the northern Ries.



Stage 3

From the noble-residence town Oettingen to the former pilgrimage site Raustetten

Stage 3 - Oettingen (Parkplatz Friedhof = cemetery parking) to Raustetten (Dorfplatz = village square)

Starting point: Kellerstraße, 86732 Oettingen in Bayern (N48°57'24.5" E10°36'10.2" / 48.95681 10.60283)

Length: 21.4 km

Hiking time: 5.30 hrs

Elevation difference: 345 m ascent, 325 m descent

Character of the stage: mainly on country lanes, partly on hiking paths or trails on the edge of woods, predominantly sunny

The third stage begins with the ascent from Oettingen to the Roßfeld, which has a richly structured man-made landscape. Fields and meadows alternate with heaths grazed by flocks of sheep, traditional meadow-orchards, woods, field margins and hedgerows. Here you pass a **station of the Franconian Moststraße** (Must Road, "must" meaning a traditional fruit wine).

The **burial-mound field Heide near Hochaltingen** bears witness to the middle Hallstatt period, when the custom of burial within a chamber under a mound was widespread.

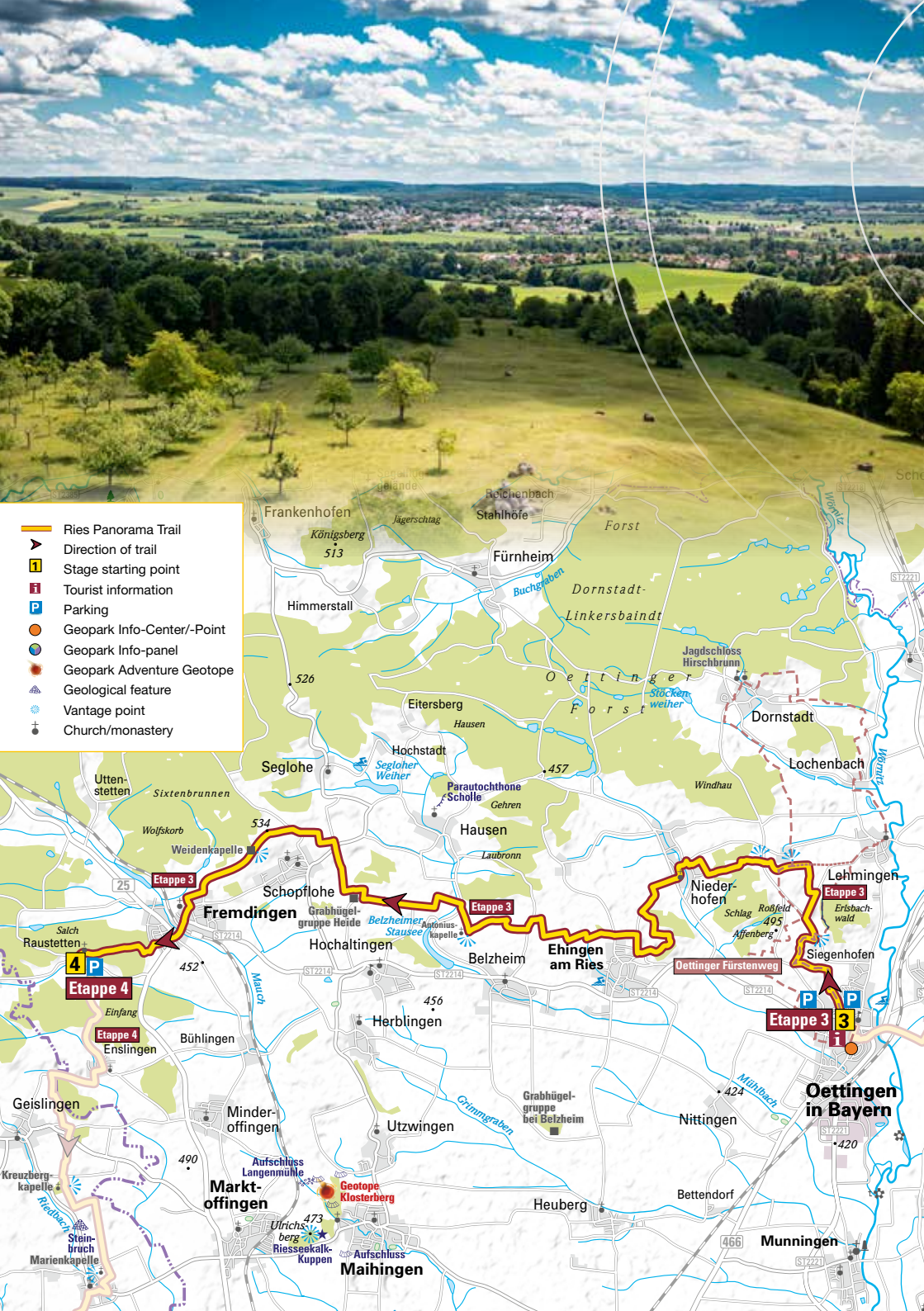
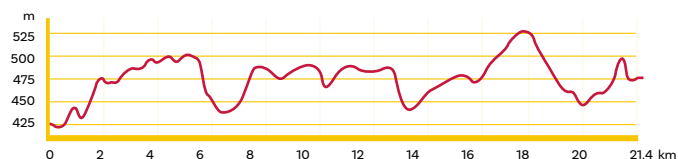
Passing the **Weidenkapelle** (chapel), you reach Fremdingen and further to the Ölberg Chapel idyllically situated at the edge of the woods. The third stage ends in Raustetten.

Again and again, grand panoramic views open up into the Wörnitz valley. Outside of Eingen, the trail leads past a **multidenominational fortified church**, which is used as a Catholic and a Protestant parish church.

The path leads through agricultural fields to the **Antonius Chapel with peace cross** and a lovely view.



Elevation profile:



- Ries Panorama Trail
- Direction of trail
- Stage starting point
- Tourist information
- Parking
- Geopark Info-Center/-Point
- Geopark Info-panel
- Geopark Adventure Geotope
- Geological feature
- Vantage point
- Church/monastery



In recent years Oettingen has become a real stork town—in 2021 there were 29 occupied nests. There is a stork diary, kept by the stork commissioner, as well as a stork-nest tour.

The basis for this is the rich supply of food in the nearby surroundings. The Wörnitz meadows and the expressly created stork ponds are particularly important habitats for prey such as mice, frogs, small fish and insects.

Stork and noble-residence town Oettingen

After all, storks have nested in Oettingen for over 400 years. After the Schmalkaldic War (1546-47), Count Ludwig, who was a friend to storks, had to leave the town—whereupon the storks also moved away. They only returned when the count came back to Oettingen much later in 1563.



Stage highlights

Station of the Franconian Moststraße (Must Road)

On the Roßfeld with its former community orchard, the largest in the Ries, is a station of the Franconian Must Road that connects sites related to traditional fruit wines.



Antonius Chapel with peace cross

Donated by Anton Jaumann, a native of Belzheim, who as Bavarian Minister of Economic Affairs and Transport from 1970 to 1988 significantly promoted Bavaria's development from an agricultural state to an industrial region and in doing so always kept his homeland in mind.



Astrolehrpfad

Between Oettingen and Fürnheim, you can “hike” the solar system on a scale of 1:500 million on the Astrolehrpfad (Astro Trail).

Burial-mound field Heide near Hochaltingen

Of the once more than 150 burial mounds from the middle Hallstatt period, only a few dozen are still discernible today. It is remarkable that they are not only located in the forest but have been preserved in agriculturally used fields.

Ehingen's multidominational fortified church

The fortified church in Ehingen also served to protect the population. Since the Reformation it has been used by both Catholics and Protestants.



Weidenkapelle (chapel)

This chapel stands on the lovely Urlas near Schopflohe.



Stage 4

Over forest and meadow trails past a chapel and idyllic natural highlights

- Stage 4** - Raustetten (Dorfplatz = village square) to Kirchheim am Ries (Parkplatz Kloster = monastery parking)
- Starting point:** 86742 Fremdingen-Raustetten (N48°58'03.0" E10°26'03.4" / 48.96750 10.43428)
- Length:** 21.0 km
- Hiking time:** 5.30 hrs
- Elevation difference:** 355 m ascent, 300 m descent
- Character of the stage:** mainly country lanes, partly on hiking trails or paths in forests or on edges of forests, longer sunny stretches



- Ries Panorama Trail
- Direction of trail
- Stage starting point
- Tourist information
- Parking
- Train station
- Geopark Info-Center/-Point
- Geopark Info-panel
- Geopark Adventure Geotope
- Geological feature
- Vantage point
- Church/monastery

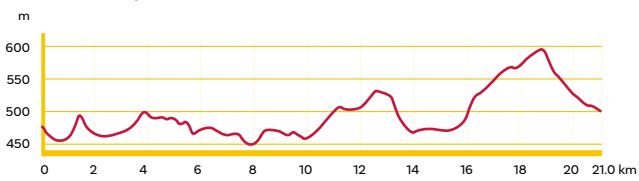
The fourth stage of the Ries Panorama Trail leads from Raustetten through the woods to little Ennsingen. In a meadow at the edge of this village is a **Turm-
hügel** (motte = castle-site hill) where a residence for nobility was erected in the 10th century.

The trail continues with great vantage points in the Ostalbkreis district of Baden-Württemberg. The **Stocken-
weiher** (pond) provides a resting place. After the **Kreuzbergkapelle (chapel) with Stations of the Cross** and the **Maria-Hilf-Kapelle (Marian chapel)** on the **Kapellenberg**, you descend to Unterwilflingen. The **Heimischberg** heath hill is along the way. The outcrop there shows a limestone block rather uncommon for the western Ries.

In the renaturalized section of the Schneidheim Sechta you encounter an **aurochs pasture** with observation tower and information panels. Along the sunny edge of the forest and through a traditional meadow-orchard lane, you hike a short ascent and then over the **Blasenberg** with heath vegetation and a fantastic view.

Well worthwhile is a detour to the Ipf, a 668-meter-high isolated hill not affected by the impact but rather eroded from the Swabian Alb by weathering processes. Passing the **Geopark Ries Info-Point at the Riesblick rest area**, you reach Kirchheim am Ries, where the stage ends at the monastery parking lot.

Elevation profile:





Touristic treasure Raustetten

Due to its former significance as a pilgrimage site as well as its especially attractive location as a leisure destination, Raustetten has developed into a touristic treasure. Around 50 residents (in 2020) live in the village administered by Fremdingen, but there are restaurants of supraregional importance.



Stage highlights

Turmhügel “Hofwiesberg“ Enslingen

The prominent castle-site hill “Hofwiesberg“ on the edge of the village Enslingen once had a tower of wood or stone and was probably the residence of a local nobleman.

Kapellenberg with Marian chapel

Since around the year 1700, the Maria-Hilf-Kapelle has crowned the Kapellenberg hill above the village of Unterwilflingen.

Blasienberg

The heathland hill Blasienberg is on the one hand part of the western crater rim, on the other hand it is an isolated hill of the Swabian Alb.

Stockenweiher (pond)

Despite its use as a swimming pond, the Stockenweiher is quite close to a natural state with its area of silt, floating-leaf vegetation and willows. An open-air festival is held here every two years.

Geopark Ries Info-Point at Riesblick

The bilingual Geopark Ries Info-Point on the Blasienberg enchants with its exceptional view into the Ries Crater and to Kirchheim am Ries.



Kreuzbergkapelle with Stations of the Cross

A Stations of the Cross path leads to the Kreuzberg chapel, which is said to go back to the healing of a paralyzed maid.







View from the Blasienberg hill





Stage 5

Bats and nature reserves

-  **Stage 5** - Kirchheim am Ries (monastery parking) to Utzmemmingen (street named Platz von Esvres)
-  **Starting point:** Klosteranlage (monastery complex), Klosterhof 10, 73467 Kirchheim am Ries (N48°52'37.5" E10°23'46.7" / 48.87708 10.39631)
-  **Length:** 14.7 km
-  **Hiking time:** 3.75 hrs
-  **Elevation difference:** 280 m ascent, 330 m descent
-  **Character of the stage:** partly on country lanes, partly on hiking paths, rarely forest trails, mainly sunny

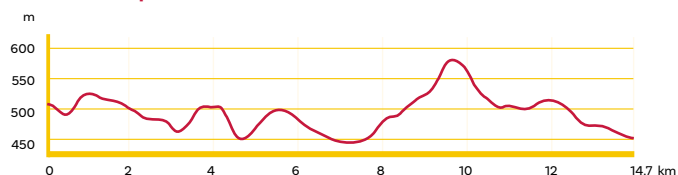
The fifth stage of the Ries Panorama Trail leads through the Kirchheim monastery garden with its insect hotel and fruit trees to the **Klosterweiher** (monastery pond), the territory of several beavers. It goes over the Reimersbergle hill to the **Langenberg**, where you walk along the slope with a beautiful view of the Ries.

On the **Goldberg** you can again enjoy the magnificent view, before crossing the Goldbach valley and hiking over another ridge to Trochtelfingen.

On an ascending path you reach **Untere Röhrbachmühle** and then follow the signs across the heath of the **Kapf nature preservation area**, where rare plants thrive in the woods and on the dry grasslands. Enjoy wide views from the ridge between the Eger and Röhrbach valleys, before passing the idyllic, green, park-like location of the **Josefskapelle** to reach the stage destination, **Utzmemmingen**.



Elevation profile:





Vital quarters for endangered bats

Klosterkirche Kirchheim am Ries

The roof of the Kirchheim monastery church provides essential quarters for endangered species of bats such as the serotine bat. Here they have their nursery, where the females give birth to and raise their young. They find their food, which consists exclusively of insects, on the species-rich dry grasslands growing on the limestone of the surrounding Blasienberg, Goldberg and Ipf nature preservation areas.



Stage highlights

Monastery pond

The Kirchheim monastery pond used to be referred to as the “big mill meadow pond” – there was also a “small mill meadow pond” nearby.



Langenberg

Composed of nonlocal (allochthonous) limestone blocks, this hill is named for its elongated shape. There are splendid views of the Goldberg and into the Ries.



Goldberg

Its cliff walls are the result of quarrying in the past. Today they provide habitat for rare species of wild bees such as the *Megachile parietina*, a solitary bee that builds its nest on cliffs or walls. Several prehistoric settlement phases have been documented on the Goldberg plateau.

Kapf nature preservation area

The Kapf limestone block was moved just slightly by the Ries impact and lies directly on the western crater rim. Featuring heaths, calcareous beech forests, fields characterized by limestone fragments and dry, warm fringes, the protected nature area is home to some very rare plant and animal species.

Josefskapelle (chapel)

Built in 1913 at the picturesque edge of Utzmemmingen, the Josefskapelle was probably financed by Reverend Johann Bautenbacher, who donated to the parish of his birthplace in 1859 to have a chapel built there.



Stage 6 From leisure destination Utmemmingen on the trail of history

- Stage 6** - Utmemmingen (street Platz von Esvres) to Mönchsdeggingen (monastery)
- Starting point:** Platz von Esvres 1, 73469 Riesbürg-Utmemmingen (N48°49'41.0" E10°26'15.2" / 48.82806 10.43756)
- Length:** 21.5 km
- Hiking time:** 5.30 hrs
- Elevation difference:** 390 m ascent, 350 m descent
- Character of the stage:** mainly on forest and forest-edge trails, partly on country lanes, longer shady stretches

The sixth stage of the Ries Panorama Trail leads to the **Riegelberg** with heath vegetation and the archeologically and geologically interesting **Ofnet Caves**.

A detour to the **ruins Hochhaus** is also possible before you pass the **Karlshof**. The idyllic **fountain** with spring and spring pond is an invitation to rest.

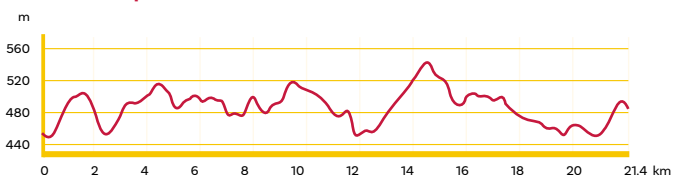
At the nearby **Villa rustica**—a former Roman agricultural estate—you reach the Maienbachtal (stream valley) and shortly afterward the **former Suevite quarry Altenbürg**, where you can examine the Suevite typical for the Ries.

At the edge of Mönchsdeggingen you reach the **Geopark Ries Geotopes Kühstein**, where rock exposures make Ries geology visible. Through the **Kunstwald** (woods with art installation) the trail continues to the **Buchberg**, which offers a wide view over the Ries to the Hesselberg region. The stage ends at the **Mönchsdeggingen monastery**.

After a longer hike you reach the **ruins Niederhaus**, one of the former Staufer castles, which crowns a craggy ridge above the Kartäuser valley.



Elevation profile:



- Ries Panorama Trail
- Direction of trail
- Stage starting point
- Tourist information
- Parking
- Train station
- Geopark Info-Center/-Point
- Geopark Info-panel
- Geopark Adventure Geotope
- Geological feature
- Vantage point
- Church/monastery

A community that is part of Riesbürg Utzmemmingen

Since 1973 the state-approved leisure destination has been a part of the newly formed municipality of Riesbürg located in the Württemberg part of the Ries. The name devised for this new municipality is a combination of “Ries”—which itself is derived from the Roman province name “Raetia”—and “Bürg”—referring to the former existence of several castles nearby, including the Alten Bürg.



Stage highlights

Riegelberg

The limestone block now called the Riegelberg was moved by the Ries event. Its valuable heath vegetation developed from and is maintained by migratory sheep grazing.

Ofnet Caves

Underground dissolution processes (karst formation) formed the Large and Small Ofnet Caves, which are well-known for their archeological finds, especially for the two “nests” of skulls from the Middle Stone Age.



Villa Rustica

This *Villa rustica* at the foot of the Riegelberg was built and occupied by Roman settlers in the 2nd and 3rd centuries. There were more than 100 of these self-sufficient agricultural estates in the fertile Ries.

Suevite quarry Altenbürg

For a long time the Suevite quarry Altenbürg served (mistakenly) as “proof” of the volcano theory of the formation of the Ries. This is probably the quarry from which the construction material was extracted for Nördlingen’s St. George’s Church with church tower Daniel.



Ruins Niederhaus

Today ruins, the castle Niederhaus was built in the 12th century and was an ancestral seat of the noble family von Hürnheim, who dominated the southern Ries into the 14th century.

Geopark Ries Geotopes Kühstein

Here you can marvel at relatively well-preserved Upper Jurassic (White Jurassic), sponge-reef limestone beside deposits of a river delta on the shore of the former Ries lake.

Kunstwald

The art installation in the Mönchsdeggingen woods was intended to represent the secrets of the forest and the beauty of nature. Natural colors that fade with time were intentionally used.







Buchberg

Enjoy the splendid vantage point with view over the Ries and typical heath vegetation.



Stage 7

From monastery to castle through lovely forests and an encounter with the planetary path

-  **Stage 7** - Mönchsdeggingen (parking near monastery) to Harburg (Unterer Burgparkplatz)
-  **Starting point:** Klosterstraße, 86751 Mönchsdeggingen (N48°46'24.2" E10°34'59.9" / 48.773389, 10.583306)
-  **Length:** 10.5 km
-  **Hiking time:** 2.45 hrs
-  **Elevation difference:** 170 m ascent, 185 m descent
-  **Character of the stage:** mainly on forest paths and hiking trails, longer shady stretches



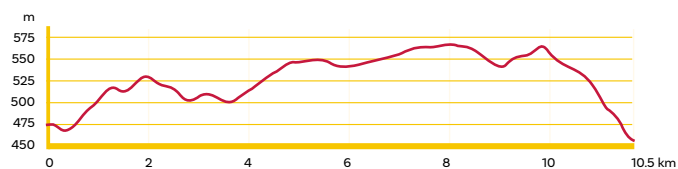
The seventh stage of the Ries Panorama Trail leads along the monastery wall and into the woods. Past an agriculturally used clearing with a view of the monastery church, the trail continues mainly through the forest in the direction of Eisbrunn. You can admire numerous exotic tree species in the nearby **forest garden**.

On the panoramic descent you pass the **Pluto station** of the Planetary Trail and then walk by hedges to the Unteren Burgparkplatz near **Harburg**. This is where the last stage of the Ries Panorama Trail ends.



Over forest paths you reach the heath hill **Bock**, where from the “summit cross” very good views open up to Donauwörth and the Ries.

Elevation profile:



Mönchsdeggingen

and the monastery on the southern crater rim

With its scenic and species-rich heaths on the Kühstein and Buchberg hills, Mönchsdeggingen is a jewel in the southern region of the crater rim with its unique geology. The first monastery in the Ries stood here already by the 10th century. Today's buildings are from 18th century.

Stage highlights

Mönchsdeggingen monastery

The oldest monastery in the Ries is also known as "Wies im Ries" because of its Rococo-style ornamentation.



Pluto station

The Pluto station on the Bock is the end point of the Ries Crater Planetary Trail, on which all the planets of the Solar System are presented on a scale of 1: 400 million.

Eisbrunn forest garden

From 1834 the Eisbrunn forest garden was established as a large plantation with exotic tree species in order to try new forms of forest cultivation. It can still be enjoyed today.

Bockberg

The Bock offers not only a view into the Ries, but also into the Wörnitz valley towards Donauwörth – and with a strong southerly wind even the Alps can be seen.



Town of Harburg

There is an interesting Geopark Ries Info-Point in Harburg right beside the Wörnitz at Donauwörther Str. 25 (info about Harburg can be found on Stage 1).

Bockberg Harburg

Ferienland (Tourist Region)
DONAURIES
A cosmic creation

Parks und gardens for all the senses

The flair of this charming region with its natural features and created recreation areas is particularly evident in the parks and gardens of the Ferienland DONAURIES. In the UNESCO Global Geopark Ries, adventure seekers can experience—up close—the impact of a meteorite 15 million years ago. In contrast, the Dehner Blumenpark (flower park) was created by human hands. Here visitors enjoy delightfully landscaped gardens with a unique variety of flowers, plants and trees. Idyllic forest and city parks invite you to pause and linger, while in some public-accessible castle and monastery gardens, you can walk in the footsteps of a rich history!

Ferienland Donau-Ries e.V.
Pflegerstraße 2
86609 Donauwörth
+49 906 74-6060
info@ferienland-donau-ries.de
www.ferienland-donau-ries.de

*Fun for children
and families in the
Donau-Ries*



Fun for children and families in Donau-Ries

Is there anything better than spending time with your family and children? The Ferienland DONAURIES offers great outdoor and indoor activities for a relaxing family vacation. Discover animals & nature as well as games & sports activities.

With a variety of swimming options, there is plenty of water fun in summer. Besides the discovery tours on hiking trails & walking

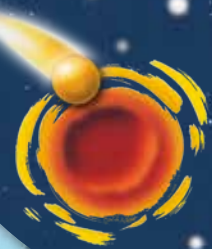
paths there is plenty of inspiration for culture & entertainment. In the Ferienland DONAURIES you can also go on a digital tour. Audio-tours allow families with children to organize their vacation day individually and flexibly. Discover the Ferienland DONAURIES and look for inspiration and ideas for a nice, relaxing family trip!

Adventure camping

Visitors to the Ferienland DONAURIES can choose from a multitude of attractive camping options in a friendly and relaxed atmosphere.

Idyllic and exciting at the same time: Pure adventure awaits the vacationer in the camping sites in the Ferienland DONAURIES. The extensive range of leisure activities and friendly service guarantees carefree hours. Well-equipped motor-home sites in central locations allow you to stop whenever you want to go on a discovery tour.





**GEOPARK
RIES**

Europas Riesiger
Meteoritenkrater



Den Krater geführt erleben

Erkunden Sie faszinierende Geologie, einmalige Natur und jahrtausendealte Besiedlungsgeschichte mit unseren zertifizierten Geopark Ries Führerinnen und Führern im UNESCO Global Geopark Ries.

Prospekte kostenlos
anfordern unter
www.geopark-ries.de



Geopark Ries e. V.
Pflegstraße 2
86609 Donauwörth
Tel.: 0906 74-6030
info@geopark-ries.de

Imprint

Publisher: Geopark Ries e. V., Pflegstraße 2, 86609 Donauwörth, Germany

Editing: Geopark Ries e. V., Expert teams

Authors: Geopark Ries e. V., Ferienland Donau-Ries e. V.

Translation: Cindy Cooper

Design: Böker & Mundry Werbeagentur GmbH, 91522 Ansbach, www.boeker-mundry.de

Topographic map: © Huber Kartographie GmbH, 85716 Unterschleißheim, www.kartographie.de

Panorama map (p. 4): © Galli Verlag+Vertrieb GmbH, 86558 Hohenwart

Picture credits: Dietmar Denger, Foto Finck GmbH, Luftbild Geyer, Fotostudio Herzig, Kaloo Images, Marco Kleebauer, Gisela Pösges, Florian Trykowski

Edition: 1st edition





GEOPARK RIES

Europe's Giant Meteorite Crater



unesco

Global Geopark



NATIONAL
GEOPARK

RIES

Geopark Ries e. V.

Pflegstraße 2 · 86609 Donauwörth

Tel: +49 906 74-6030

info@geopark-ries.de

www.geopark-ries.de



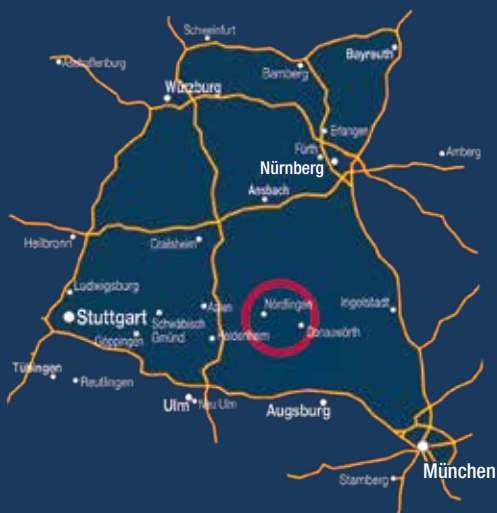
gefördert durch
Bayerisches Staatsministerium für
Umwelt und Verbraucherschutz



Premium partners:



Location in southern Germany



For more information visit us at
www.geopark-ries.de