



# CARRY ON THE FLAME

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## Natural heritage in Germany (UNESCO Sites)

### **The Messel Pit**

In 1995 the fossil site Grube Messel near Darmstadt was included in the UNESCO World Heritage List as Germany's first natural heritage site. 48 million years ago there was a water-filled volcanic crater at the site of today's mine. In the deep layers of the crater lake there was practically no oxygen. Therefore, animal bodies and plant remains could not decompose and remained excellently preserved as fossils in the very fine-grained sediment.



The unique quality of the full-body skeletons, including body outline, hair, feathers and even stomach contents have led to the pit's inclusion on the World Heritage List.

During the Eocene period Messel lay in a tropical rainforest. Crocodiles and a large number of bats are typical finds in the oil shale of the mine. However, the site is famous for its primeval horses. The oil shale, which contains a lot of water, makes it necessary to transfer the finds to synthetic resin. Without this preparation technique, the valuable fossils would be destroyed by drying.

### **The Wadden Sea**

The Wadden Sea World Heritage site covers around 11,500 square kilometres along the North Sea coast and has a length of around 500 kilometres. The Wadden Sea has been included on the World Heritage List under all three criteria: It is of unique importance both geologically and due to its ecological processes and its great diversity of species. In addition, the Wadden Sea is the largest continuous mudflat habitat in the world.



Geologically it is a very young landscape. Only at the end of the Ice Age before 10000 did the North Sea and the Wadden Sea emerge in their present form. About 10,000 species of living creatures use the shallow sea, which exposes countless mud and sandbanks at low tide. It is an extremely important resting place for migratory birds - during the migration season about 12 million birds pass through the Wadden Sea and take a break there.



### **Old beech forests**

Since 2007, the old beech forests in Central Europe have been an official UNESCO natural heritage site. In 2011 five old German beech forests were added to the list. Germany is located in the centre of the beech distribution area. Such forests are (if the soil is not too dry or too moist) the typical forest form in Germany. 26% of all beeches worldwide grow in Germany. Only a few of these forests in Germany have been preserved in a more or less natural state - they are now listed as World Heritage.

Old beech forests are characterised by a very high diversity of species - up to 10,000 different animal species have been identified. The natural heritage includes forests in several European countries - but the forests in Germany are special: they are the only lowland beech forests in the world that still exist. Part of this heritage lies in our federal state of Hesse - the Kellerwald. There 40% of the beeches are older than 120 years, some trees are even 260 years old.