

**A new (semi)aquatic lizard from the island of Krk (Kvarner region, Croatia) with remarks on its relationship and biology
(Reptilia: Sauria)**

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Introduction:

During my field trip on the island of Krk, Croatia, at the end of March 2005, an unknown species of lizard could be observed. Now, eight months later and after dozens of hours of meticulous work, I am able to describe this highly secretive reptile as a new species.



The author – pondering on what he has seen

Circumstances of finding:

Although I have visited the Ponikve lake many times before and after this finding, the lizard was seen just once, during very cloudy, foggy weather. All attempts to have a look at it during sunny days have not been successful. Although a close encounter was also not possible, a quite good



The locality, where the lizard was seen, a few minutes after it had dived away. Pay attention to the cloudy and foggy weather conditions.

Description

can be given:

The lizard has a very stout body, and an extremely long neck with a very small head. The front and hind legs are elephant-like. The colour was nearly bright blue with an orange belly und underside of the neck and throat. Because of it's bright colours, it is supposed to be a male. Therefore an another individual, a female, should live on the island of Krk or at least on one of the neighbouring islands (since parthenogenesis is not possible in males). So this lizard resembles a dinosaur, a group of reptiles that went extinct millions of years before. The same holds for its size as well: A total length of 40 to 50 meters seems to be realistic, although the size could be estimated only by comparison with the nearby trees and the length of the dam at the end of the Ponikve lake.

Only one related species seems to live in our days (see the chapter Relationship). Therefore a new genus as well as species name is used.

Brunosaurus sochureki, gen. nov. and spec. nov.

The genus ***Brunosaurus*** was described in honour of SILVIO BRUNO, a famous Italian herpetologist. We owe him lots of new records of species in new areas, like ***Malpolon monspessulanus***, ***Hemidactylus turcicus*** and ***Tarentola mauritanica*** for the Kvarner island of Krk.

The species *sochureki* honours ERICH SOCHUREK from Vienna. Besides SILVIO BRUNO he reports many amphibian and reptile species from the island of Krk, never found again ever since.



The first picture of *Brunosaurus sochureki*

Relationship:

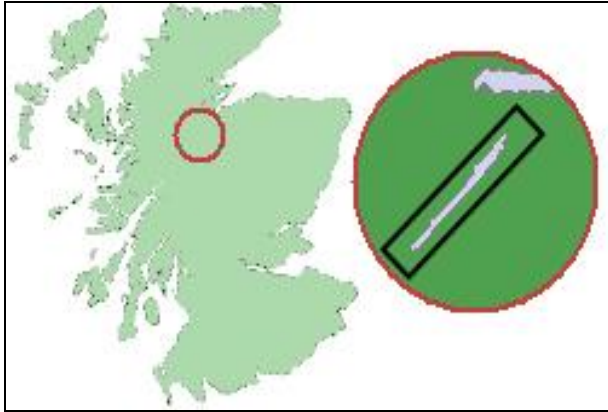
Only one other reptile of approx. the same size and of aquatic habits is known today. This reptile is called “Nessie”, *Nessiteras rhombopteryx*. On the basis of the rather few pictures of this reptile, one can assume it to have a more snakelike appearance. *Nessiteras rhombopteryx* has been seen swimming in vertical amplitudes. It is distributed only in Loch Ness in northern Scotland. This lake is 36 km long and 1.5 km wide. Its maximum depth is 325 meters.

This is in strong contrast to the Ponikve lake. The dimensions of this lake are 1.5 km by 500 meters. Its depth is just a few meters as we know. But there has to be at least one deep hole or underwater cave, where the animal may hide.

Nessiteras rhombopteryx, in contrast, prefers deep waters. It has never been seen in shallow water exposing its trunk to the air.



Loch Ness, view from the south



Location of Loch Ness in Scotland

Biology:

Nearly nothing is known. It seems to be an aquatic species, or semiaquatic at least. Only the feeding habits can be supposed to some extent. The day after observing *Brunosaurus sochureki* dozens of killed and partly eaten *Bufo bufo spinosus* were found beside the Ponikve lake. So the main food of *Brunosaurus* will be mostly amphibians maybe as the best guess. It is possible that Common Toads are a present substitute for the originally preferred species like *Bombina variegata* and *Rana dalmatina*. As it can be taken for granted that a huge lizard like this one needs a lot of amphibians for one meal, it is by no means surprising that the Yellow-bellied Toad and the Agile Frog have become extinct at the island of Krk.

meal leftovers (*Bufo bufo spinosus*) of a *Brunosaurus sochureki*

Much more research remains to be done to learn more on this secretive but impressive animal.