

Abstract

Human modifications and related pressure on watercourses of its ecosystem became greatly discussed problematic in the latest dry years. The translated bachelor's thesis deals with these encroachments on watercourses as well as with its impact on hydromorphological quality. In *recherché* there are discussed basic hydromorphological knowledge and modifications of watercourses with its negative and positive effects on the watercourse along with its surrounding. For the evaluation of the hydromorphological condition was used HEM methodology (Langhammer 2014) applied on upper course of the Metuje River. Overall, based on the outcome of the HEM methodology the upper stream of the Metuje River is evaluated as a weakly modified. Less disturbed sections can be found in the area of the National Nature Reserve Adršpašsko-Teplické skály. The largest modifications can be seen in the build-up areas of Teplice nad Metují, where these modifications come particularly from the period of the First Republic. The area of the floodplain, is the most affected area. Trace of the rivercourse was overall shorted by 1 569 meters, therefore 7,5 % since mid-19th century, chiefly in the surrounding of Teplice nad Metují. The greatest concentration of diverse modifications is in the build-up zones.

Key Words: Hydromorphology, channel, HEM, river network, upper Metuje river