## **Abstract**

This thesis deals with the evaluation of ecoducts using GIS, represented by the ArcGIS Pro software tool. We present a new, systematic view on the evaluation of ecoducts, which is directly applicable also in the process of planning their construction. We conclude that the majority of ecoducts in the Czech Republic is not built in an unquestionably correct way in terms of their primary purpose. At the same time, however, most of these ecoducts meet at least some of the assessed criteria; we can therefore reasonably assume that they will be used, albeit with a lower preference. The thesis provides a basis for this view and can be expanded by adding additional evaluated criteria. The validity of the methods and results of this work should be verifiable by field research.

Key words: ecoduct, GIS, remote sensing, fragmentation, architecture, linear infrastructure