

Vulnerability analysis for Trolltunga path

Introduction

The vulnerability analysis is an assessment and evaluation of vulnerable nature and wildlife along the Trolltunga path, from Mågelitopp to Reinaskori. The visitor numbers to Trolltunga has increased from 20 000 in 2013 to 88 000 in 2018. Trolltunga AS with the support from Hordaland County Council and ASCENT project have commissioned the report. The consultant for the report has been Norconsult AS and the field work and the report were completed in August 2019. The work has been carried out in close partnership with Trolltunga AS. A special thank you to the Mountain Guards team at Trolltunga who contributed their local knowledge and experience during the field work.

Abstract

The purpose of the risk analysis was to identify sensitive vegetation and fauna along the Trolltunga path and to evaluate how vulnerable the natural environment in the area is to the impact of human visitors. The number of visitors to Trolltunga has increased from 20 000 in 2013 to 88 000 in 2018. This has led to increased pressure on the path and the nearby natural environment. A number of measures designed to combat the negative effect are already in place.

The aim of Trolltunga AS, who has procured the risk analysis, is that the Trolltunga path successfully applies for status as a Norwegian Scenic Hike (NSH). In order to qualify as an NSH, a visitor strategy and a risk analysis of the path and surroundings are required. The visitor strategy was compiled in 2018, financed by Hordaland County Council (HCC) and the NPA-financed project ASCENT. The risk analysis was funded through a partnership between Trolltunga AS and HCC, again with funding from ASCENT project.

The risk analysis was produced in accordance with the «Manual – risk analysis for path localities in protected areas for flora and fauna» (Hagen and others, 2019). The report also includes a short description of the method used and an overview of relevant existing knowledge gained through the work leading to the Visitor Strategy for Trolltunga. Data from the survey detailing movement in the Hardangervidda national park, Ferdselsprosjektet, were also used. These data describe possible consequences of the increased footfall should a larger number of hikers on the Trolltunga path choose to continue into the central areas of the Hardangervidda, and vice versa.

The test area where the field work was carried out includes the Trolltunga path and bordering natural environments from Mågelitopp in the west to Reinaskori in the east. The outline of the testing area was determined by Trolltunga AS to include the affected area along the path, in line with the criteria in the above mentioned manual. It follows that the test areas are the cabin area at Mågelitopp, the area around Floren, the area at Endanut and the tenting area between Trolltunga and Reinaskorsbu.

For the purpose of the field work, the testing area was partitioned into ten limited areas with a reasonably similar type of vegetation and footfall. Several of the limited areas include sensitive vegetation units in the form of ridges, steep slopes with unstable substrate, marshland and other wetlands with vegetation cover. Other red-listed types of habitat like areas with deep snow (VU), mountain heath and leeward areas (both NT) were found inside several of the limited areas. Some of the leeward areas were found to have particularly rich vegetation. The vulnerability of the limited areas was assessed relative to the level of coverage of the sensitive vegetation units and their relative positioning to hikers and other influences. The effect of the footfall on the vegetation units in general is limited, although a greater degree of wear on sensitive vegetation was found in some locations.

In the area around Mågelitopp there are several lakes and brooks with waterside vegetation in the form of willow thickets which are beneficial to bird life. Further into the mountain, the bird life is limited to grouse and typical mountain passerines such as Meadow pipit and Northern wheatear. The White wagtail and Ring ouzel were also observed in the area around Floren. In general, the low numbers of

birds and animal tracks long the path are noticeable and most likely a result of interference from the area's footfall. Beyond Trolltunga, in the area around Reinaskori, a much higher density of passerines were observed, including Twite (NT). The impact of the footfall on the path is localised to the area near the path, and presents no great threat to the birds and other wildlife in the mountain area around Tyssedal and Odda. As of today, the absolute majority of tourists stick closely to the path from Skjeggedal to Trolltunga. Should this change, and the high number of hikers to Trolltunga lead to increased footfall from Trolltunga further into the mountains, this is likely to represent considerable negative consequences for the wild reindeer herd in the Hardangervidda park. The distance to the reindeer's important functional areas is short.

The challenges along the Trolltunga path are mainly linked to the erosion of vegetation, interference affecting birds and wildlife and littering. Littering is mainly an aesthetical problem, even though human excrement and urine also can have an impact on the water quality locally. Erosion of the vegetation and the impact on bird life and other animals is also local. In places, the path is broad and not clearly defined and the most important preventative measure for erosion control and interference is to limit the footfall even further to a clearly defined area. Impact on the wild reindeer herds as a result of increased footfall from Trolltunga into Hardangervidda would represent a major threat. The marking of paths into Hardangervidda should be limited to reduce this risk.