

# **EFFECTS OF WHITE-TAILED EAGLES ON THE REPRODUCTIVE PERFORMANCE OF BLACK-LEGGED KITTIWAKES; INDICATIONS FROM A 26-YEAR STUDY IN NORTH NORWAY**

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In the late 1990s, numbers of non-breeding White-tailed Eagles *Haliaeetus albicilla* that spend the summer in Røst, an offshore archipelago in northern Norway, increased drastically and have since remained high. Parallel data on eagle numbers (daily observations) and the population trends and breeding success (number of large chicks per nest) in three colonies of Black-legged Kittiwakes *Rissa tridactyla* were collected in 26 different years since 1979. Two of the colonies were on cliffs; the main colony, which decreased steadily from about 25,000 to 9,300 pairs during the study, and a small colony with highly variable breeding numbers (16-253 pairs). The third colony, however, which increased from 131 to 633 pairs over the period, is on buildings and never visited by eagles. Thus, the data sets enabled a direct estimation of to what extent the eagles affected kittiwake performance. As could be expected, breeding success in the building-nesting colony did not change significantly with the influx of eagles, but dropped markedly in two other colonies. While the main cliff-breeding colony and that on buildings had an equal breeding success (mean 0.79 fledglings per nest) in 13 years prior to the eagle boom, it was 42% lower on the main cliff than on the buildings (means 0.36 and 0.62 fledglings per nest, respectively) in the 11 following years. This is the first quantitative evidence of how the formerly threatened but now numerous White-tailed Eagle represents an additional stress to a newcomer on the Norwegian Red List, the Black-legged Kittiwake.