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Title: *The behavioural and physiological response to the various environmental conditions in a small Arctic seabird, little auk (Alle alle)*

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The flexibility of foraging strategy and parental care, adjusted to the environmental conditions seems to be crucial for little auk *(Alle alle)*, seabird breeding in large colonies in the high Arctic. Varying spatially and seasonally the distribution of cold Arctic waters along the west coast of Spitsbergen have been reported to affect the little auks' foraging behaviour. We measured the parental efforts, body condition and stress levels of adult and nestling little auks from two colonies differing by environmental conditions both in the feeding grounds and in the colony. We hypothesized that various weather conditions, food availability and quality may change birds' behaviour and physiology and influence their body condition and stress response. The study revealed that despite of existing differences in local weather and oceanographic conditions, the stress level of the adult little auks was similar in both colonies. This suggests that the adult little auks may adapt to heterogeneous conditions without visible signs of stress. In chicks the elevated stress level was observed in the unfavourable conditions, however it was not parallel with any significant differences in chicks' body mass and survival at the breeding stage. The results suggest a wide range of little auks' behavioural and physiological plasticity in various environmental conditions.