

Nowakowski J.K., Chruściel J. 2008. *An index to estimate the wing area in a small passerine, using the Blue Tit (Cyanistes caeruleus) as a case study*. Ring 30, 1/2: 19-30.

Abstract

In this paper we suggest two new indices that can be used to estimate passerines' wing area. The first is a simplified index that considers wing pointedness and the width of each primary, the second is an extended index that also considers the length of the forearm. Using the Blue Tit as an example, we show that the sum of the width of all remiges is correlated with the maximum length of the folded wing ($r_P = 0.42$, $p = 0.020$, $N = 30$). The length of the ulna is correlated with the maximum length of the folded wing ($r_P = 0.56$, $p = 0.005$, $N = 24$). The two indices were derived from measurements of the wing length and the wing formula of birds caught at ringing stations. The indices can be used to analyse materials the stations have collected over the past 50 years. We also discuss how these indices can be applied in intra- and interspecific comparisons and to data collected using different standard methods.

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