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## Breeding performance of urban birds nesting in natural cavities

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Hole-nesting species that are able to adapt to urban environments appear to be restricted in terms of available nesting sites. Nest-boxes are often provided as a conservation measure, however it is not clear if these artificial cavities are optimal for birds in terms of increasing their reproductive success. Nest-boxes also provide a convenient framework to study hole-nesting bird breeding performance since sampling is simple while compared to natural cavities. However, studies in nestbox populations have been criticised since they induce artificial densities of breeding pairs and are characterised by altered nesting properties (e.g. microclimate), which contrast with natural cavities these birds originally evolved in and to which they may have optimised their breeding performance. Here, we examine various breeding-related traits of great tits (*Parus major*) and blue tits (*Cyanistes caeruleus*) nesting in natural cavities of an urban forest characterised by elements of primeval ecosystem (Las Bielański) and compare them to reproductive success in nestboxes located in eight sites in a gradient of urbanisation in Warsaw. Surprisingly, the densities of breeding pairs in natural cavities of Las Bielański were similar or greater than those observed in the nestbox study sites. A striking feature emerging from our preliminary analyses is that 15 days after hatching, both blue tit and great tit nestlings from natural cavities in Las Bielański achieved the highest body mass relative to all nestbox populations in the Warsaw gradient of urbanisation.