

Churches help to preserve bird biodiversity

They support more species than do nearby farmhouses



CHRISTIANITY and conservation have not always gone hand in hand. Yet the structures raised by Christians to exercise their faith offer tangible sanctuary to some of God's smaller creatures. Bats, famously, roost in belfries. And, according to a paper just published in *Biological Conservation*, churches are also good places for birds. They are complex structures, with lots of nooks, crannies, rafters, holes and towers to sleep and nest in. Churchyards also often host a diverse collection of greenery and ancient trees.

A team led by Piotr Skorka of the Polish Academy of Sciences set out to see just how good churches are as bird habitats. In villages dotted across the southern Polish countryside, Dr Skorka and his colleagues visited 101 of them, as well as an equal number of nearby farmhouses (known to be ecologically beneficial, too), to compare the number of species the two types of buildings host.

Starting at daybreak on days of fair weather, the researchers walked slowly, carefully noting over 5,500 individual birds living in and around the buildings. They jotted down the physical dimensions of each building, together with other structural elements such as trees, shrubs and gardens. They then used a statistical analysis that included six measures of bird diversity to gauge the effects of different building configurations on the number of species, and the abundance of each.

Churches beat farmhouses in almost all respects. They supported more species, more varied types of species and more individual birds. Certain species were seen only in and around churches. The spotted flycatcher and the short-toed treecreeper, for example, both benefited from the surrounding trees. The older a church, the greater its levels of ornithological diversity. Stability is an important promoter of such diversity.

That these buildings were designed to be closer to God helped, too. The taller a building, the more species there were. Separate bell towers also boosted numbers. The team frequently observed birds in and around these lofty structures, well out of the reach of predators such as cats.

One of the most important concepts in ecology is that of the niche—the set of ecological criteria that a particular species is best adapted to. In light of Dr Skorka’s work it is worth remembering that the original meaning of the word was a recess to accommodate a statue in the wall of a building such as a church.

This article appeared in the Science and technology section of the print edition under the headline "Tending the flock"