

*A SMART HOME
IN A SUN LIT FOREST*



ON LOCATION



PHOTO: JULIUS KRAMER

The big double “00” is misleading. That sign on a door in the hotel corridor traditionally means “restroom”. But the inhabitants of this dwelling certainly aren’t likely to get much rest. They’re glad instead to have found such a comfortable and safe home for their new family. These blue tits have moved into a “Smart Nest Box” in Westerholz, a mixed woodland region in southern Germany. This state-of-the-art nest box was designed by the Max Planck Institute for Ornithology. The blue tit chicks have hatched and want to be fed – quite a job for their parents! With the aid of the Smart Nest Box, ornithologists can track exactly which birds enter and exit the nest and at what time. An RFID data logger system records the presence and identity of the parents, 24 hours a day, seven days a week. The birds carry tiny implanted transponders, allowing them to be individually identified. Coupled with a clock and two infrared light barriers, the system compiles an accurate activity profile for each of the breeding birds.

While blue tit pairs usually jointly rear their young, both partners may engage in additional sexual interactions. In recent years, it has become clear that this is far more common in blue tits than previously thought. What is the evolutionary advantage of rearing such “illegitimate” offspring? Thanks to the Smart Nest Box, the researchers have discovered that these chicks hatch earlier and are stronger than their half-siblings. In addition, nests containing only chicks from a cuckolded partner are rare, and in some of these cases, the social partner was found to be infertile. “Extramarital” copulation may, therefore, represent a kind of insurance against infertility.