2.3 GHz Intel Core i5 processor. Goodness-of-fit of the simulation was quantified by the explained variance in peak density at the ALAN source, defined as $1-S_{err}/S_{tot}$, with S_{err} the sum of squared residuals between simulated and measured peak density, and S_{tot} the sum of squares of measured peak density. Explained variance for all parameterizations is reported in Table S2.

We visualized simulation runs for a high (a =0.95) and a low (a =0.5) disorientation probability, as well as for moderately strong (κ=0.2) and weak (κ=0.1) attraction to light (see Fig. 4). Parameterizations are illustrated in Fig. S8. We extracted from the runs the bird density increase factor at the ALAN source and a stabilization time, defined as the time required to reach 95% of the steady state peak density at the ALAN source.

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