Humphrey and Parkes 1959), birds were temporarily checked more frequently (Helm and Gwinner 1999).

Photoperiodic Conditions: The vast majority was kept under conditions that simulated day length experienced by Austrian stonechats around the annual cycle, switching on and off daylight at the beginning and end of civil twilight, respectively. Day length was changed at weekly intervals, and between late September and mid March it was adjusted to simulate migration from a summer latitude of 47.5°N to a winter latitude of 40°N. For the subset of birds exposed to simulated day length experienced by Siberian stonechats, we accommodated for an alternative migration route by simulating wintering areas at 25°N and adjusting day length from early September until early May (for details on these conditions, see Helm et al. 2009).

Activity Recording and Initial Processing: Birds were kept in registration cages that recorded their locomotor activity around the clock via passive infrared detectors (Intellisense XJ-413T; CK Systems; 12m/40°range). In contrast to microswitches, infrared detectors record not only perch hopping, but all spatio-temporal changes of a bird's moving body. Custom-made recorders stored the number of movements per two-minute interval, and we then pooled the data of five consecutive two-minute intervals. Because infrared detectors are highly sensitive, we introduced a threshold to filter out noise. Screening of the data showed that noise patterns were suppressed if values below 20 activity counts per ten minutes were omitted (I. Schwabl-Benzinger, pers. comm.). Therefore, we scored each ten-minute interval as "active" if a total of 20 or more activity counts were registered in the five two-minute intervals. We then extracted the total number of ten-minute intervals with activity during the dark and light fractions of the day, discounting one transitional ten-minute interval in the morning and in the