

A small GPS data-logger for recording flight performance and movements in raptors

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In 1999, we made a lightweight GPS data-logger for path recording of pigeons. A detailed description of this logger is available elsewhere (Steiner et al., A GPS logger and software for analysis of homing in pigeons and small mammals, *Physiol Behav* 71:589-596, 2000). A further development of the GPS logger more suitable to be used for medium-size raptors is also available, dimensions are 30 x 30 x 6 mm, a full-operating data logger (including a rechargeable 11 g battery) being of about 20 g. The module can be attached on the back feathers. Longitude and latitude co-ordinates can be stored every second (continuous mode), with intervals to up to 9 seconds (trickle power mode), or with adjustable time intervals (push-to-fix mode) with an accuracy <10 m over distances of up to hundreds km. Data that can be analyzed with Wintrack, a public domain software for numerical and graphical analysis of paths available at www-dpwolfer.ch/wintrack Data can be also transformed in vectorial formats suitable for geographic analysis.

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