

**New tools for ecological and orientation research:  
E-NEST and MICRO-GPS path logger**

Lipp HP, Dell'Omo G, Vyssotski A, Wolfer DP

New Behavior Inc  
University of Zurich, Institute of Anatomy, CH-8057 Zurich.

E-NEST is a plate equipped with transponder antennae capable of reading codes from nestling and adult birds equipped with transponder foot rings. It records nestling activity and parental visits, and stores them to a nearby data-logger. The data-logger can be read wirelessly by palm computers, or can communicate with a remote computer through a wireless modem. The system is currently being used to monitor kestrels and owls at ecologically different sites.

MICOR-GPS is a second-generation system of the GPS data-logger first presented at Measuring Behavior 2000. It contains a u-blox GPS chip mounted on a custom board and is capable of logging between 40-100,000 data points in either continuous mode (readings 1 Hz) or user-selectable intervals. It is used routinely on homing pigeons, dogs, albatrosses and other sea birds, including species that dive. The smallest version (for pigeons) weighs 24 g and runs on rechargeable flexible batteries, allowing flight paths up to 200 km to be recorded in continuous mode. The resolution of paths is good enough to discriminate leading pigeons in a flock. For further information, visit [www.newbehavior.com](http://www.newbehavior.com).

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