

ANITRA BirdieONE GPS-GSM tag

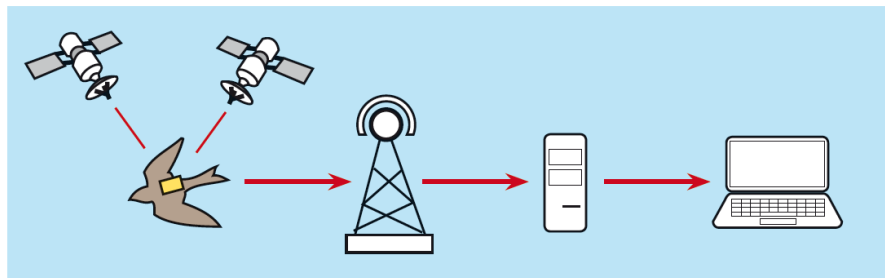
is a solar-powered GPS-GSM data transmitter designed for tracking of movement and monitoring of survival of birds and other animals roaming over large distances. It allows remote configuration of the logger behavior combined with smart automation onboard. A range of tiny cutting-edge modules and sensors allows not only to collect and sent data but even process it real-time onboard for smart decision making and data analysis (including life functions or events). Transformation and interpretation of the raw already onboard limits the need to transfer huge data sets (e.g. Pitch, Roll, Heading calculation or Mortality detection) and allows adjusting the logger behavior according to crucial events (e.g. mortality mode >> GPS precision maximized + immediate notification).

Remote OTA firmware upgrade ensures that most of the latest functionality can be used even by the loggers already deployed in the field in the past. Latest GNSS (GPS) module allows for continuous satellite tracking while GSM module covers any transmission frequency used worldwide. Modern harvesting scheme efficiently gathers energy through solar panel even at lower sunlight intensity. Advanced battery management maximizes battery capacity and lifespan of the battery and the device itself.

Functionality

Data: for Online analysis, visualisation or export available in Anitra web platform: <http://anitra.cz>

- Raw sensor data
 - GPS data (Lat+Lon, DateTime, altitude + possibly more GPS parameters),
 - temperature
 - solar panel metrics (Current, Light)
 - magnetometer data (terrestrial magnetism)
 - accelerometer data (acceleration)
 - gyroscope data (angular speed, mainly used for onboard automation)
 - barometric data (air pressure in Pa, relative altitude)
- Advanced metrics
 - Body orientation (Pitch and Roll) and body heading (yaw)
 - Mortality flag
 - Activity



Communication:

- „data only“ (GPRS): full record (and complete content of memory) delivered through the mobile data (no need for remote download)
- “data + SMS”
 - SMS: as a backup channel only
 - in case of unavailability of mobile data coverage
 - a simplified record delivered (e.g. GPS, temperature, activity)
 - “data”: a primary channel
 - all pending data sent anytime the data coverage restored
 - records delivered previously by SMS data updated
- “SMS only”: as the main communication channel (e.g. device in „no data“ area long-term etc)
 - three basic SMS modes available (“economy“, “regular“, “detailed“)
 - SMS structure of „regular“ type flexibly configurable by the user
- Bluetooth module integrated – wireless maintenance tasks (firmware upgrade)

Device configuration:

- In ANITRA web dashboard
- **GPS/sensors behavior**
 - **Standard mode:** manual user-defined GPS/sensors sampling frequency
 - **“Eco” mode:** energy (or data/cost) saving optional features
 - night sleep energy savings
 - saving based on animal inactivity
 - adjustments based on long-term negative energy balance (e.g. safety multiplier of user-defined GPS sampling frequency at 75/50/25 percent of battery)
 - **“Hi-Res” mode:** setting for activation of intensive GPS/sensor sampling
 - Activity-driven (e.g. burst triggered by the start of the flight)
 - Geolocation/geofencing launched (e.g. intensive sampling triggered while approaching to database defined point of interest or polygon such as migratory bottlenecks, regular mortality areas, nest site etc.)
 - The event launched (triggered by detected mortality, free-fall, sudden hit etc.)
- communication mode switch (“data only” / “SMS only” / “data + SMS”)
- communication scheduler possibilities
 - based on fixed user-defined frequency
 - based on particular day hours
 - based on the amount of data collected in memory (e.g. communication started as soon as the certain number of positions collected)
 - ad-hoc communication request aside of regular schedule (e.g. user needs to have fresh update data during planned physical locality check)
- SMS structure (“regular” type): user can specify which particular fields and hence how many positions should be combined into one SMS message (a default number is 5 positions per SMS)
- OTA firmware update: remote logger upgrade (“over the air”): a crucial functionality which allows upgrading loggers once deployed in the field (e.g. in case of any bug or simply in order to benefit from the latest ANITRA functionality development)

Case shape and weight:

- “Falcon” type: basic compact backpack variant /15-17g/
- “Kite” type: a backpack case with the slightly elevated body and solar panel /18g/
- “Eagle” type: elevated+elongated backpack case which carries a double solar + battery capacity /35g/
- “Heron/vulture” type: compact leg ring case suitable for larger long-legged birds /30g/
- “Harrier” type: minimalistic variant carrying smaller battery /10-12g/
- “Roedeer” type: version adjusted for carnivor and ungulate collars /200-500g/**)
- custom shapes: different sizes and shapes upon customer request

Case color: upon customer request – e.g. white, brown and grey, dark gray according to target species

Price (valid for 2019 season):

- 750 EUR / 19.500,- CZK ... basic models “falcon”, “kite”
- Additional charge of +20 EUR / +500,- CZK for models “eagle”, “heron/vulture”, “Roedeer” (extended battery and solar panels)
- prices do not include VAT
- besides GPS-GSM device ANITRA itself the price also includes
 - 6 months of data fees covered *)
 - ONline data access through a web portal and full functionality of ANITRA web platform
 - for ANITRA devices
 - for previously purchased devices of other producers (live data feed and combined visualization of all the tracking data in one environment)

*) some data-intensive modes such as HighRes sensor/GPS sampling might not be available in combination with “SMS only” mode.

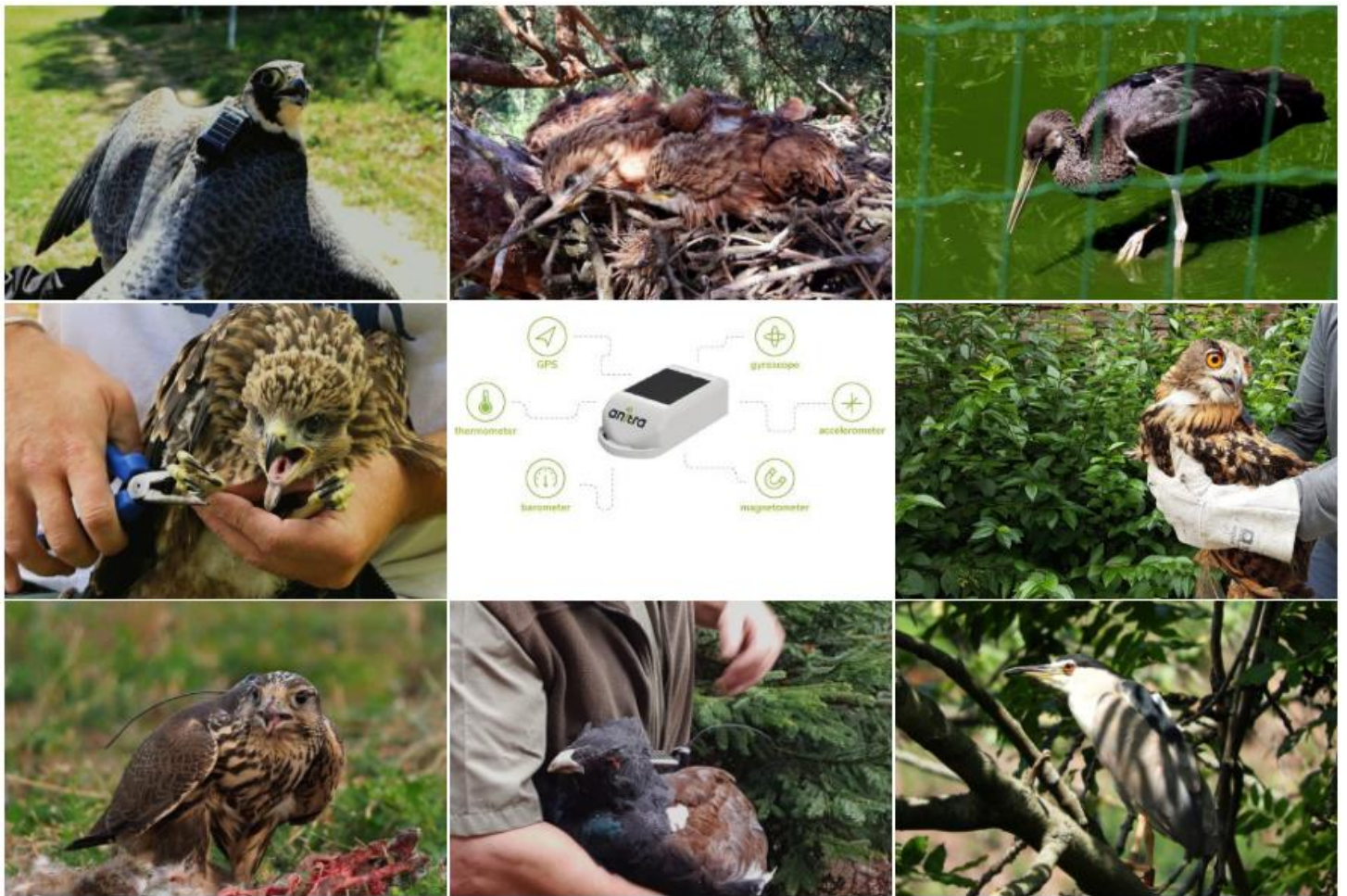
***) still rather experimental solution based on standard backpack models

OUR 2019 OFFER:

- basic price of our ANITRA GPS-GSM loggers is 750€ (i.e below price level of other producers)
- unlimited free usage of [ANITRA platform](#) included
- half year of „intensive care“ including
 - logger „health“ monitoring and surveillance
 - intensive Anitra platform user support
 - 6 month of communications fees included (with standard intensity level). Later on depending on intensity of data collection and locality (approx. 4€ a month or according to predefined montly limit)
- additional benefits/discounts to projects with following attributes
 - directly linked to conservation of globaly critically endangered species
 - larger scale deployments (orders of 5+ pcs)
 - actively and efficiently promoting ANITRA brand

With any questions please contact us at info@anitra.cz

Our ANITRA BirdieONE GPS-GSM tags in action (backpack application)



ANITRA BirdieONE Ring GPS-GSM tags (brand new „ring“ series)

