## Dangerous Journeys of Sakers of the Carpathian Basin

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Hungarians' symbolic bird, the Saker Falcon (*Falco cherrug*) – or "*Turul*" as it is called in ancient Hungarian myths – is a globally endangered large falcon species. Its original distribution area spreads from China in Asia to the Czech Republic in Central-Europe. However, due to negative human impacts on the populations in the last decades, we can now distinguish two disjunctive areas in the east and in the west. The eastern population is decreasing continuously due to heavy human impact – primarily trapping Sakers for Arab falconry.

Due to conservation efforts of the last 30 years, the number of breeding pairs is slightly increasing in Hungary, Slovakia and Serbia – the countries that make up more than 60% of the stable European population. Now there are about 180-200 breeding pairs in Hungary and another 100 pairs in the neighboring countries.

In 2006, a Hungarian-Slovak Saker conservation project supported by European Union's LIFE-Nature fund was launched. Satellite telemetry co-ordinated by **BirdLife Hungary** (Magyar Madártani és Természetvédelmi Egyesület) forms an important part of the project. There will be 46 Sakers equipped with PTTs until 2009 providing vast amounts of data about their movements. We hope to unveil threatening factors by analyzing the data, which will enable us to take appropriate steps towards more efficient conservation efforts.

In early summer 2007 we deployed 10 PTTs on Hungarian Sakers. In the first year, we used 5 Microwave Telemetry 22g solar Argos/GPS PTTs and 5 20g solar Argos PTTs manufactured by NorthStar to compare their performance. We used 6.37 mm wide Teflon ribbon to attach the PTTs to the Sakers.

Our first observations show conventional Argos PTTs provide few usable locations, probably because of the considerable background noise in this part of the world. Conversely, Argos/GPS PTTs gave us more locations with better accuracy.

We have learned from the satellite tracking that juvenile Sakers leave the eyrie about one month after fledging. By then they are able

to make long (250-300 km) journeys. Some birds made round-trips and returned to the eyrie, some left the eyrie and never came back. It was typical of all juveniles that they set up temporary bases. They made round-trips from a few kilometers to tens of kilometers exploring the neighborhood, and then, probably when the local food source dwindled. moved on to the next base. Another common feature: they

tended to stay in the lowlands,

Apart from those similarities we found a lot of individual differences. Some falcons never left Hungary, others visited 7 countries within 3 months; some headed south, others stayed in the Carpathian Basin.

The three birds that have started migrating went in three different directions. Apparently, neither weather conditions

avoiding the mountains.

Barna with GPS PTT

nor food supply triggered migration. Though all the birds met very similar conditions, some even in the same region, they acted differently. So far we think that the only explanation is the indvidual differences among Sakers.

As for the three migrating birds, there is one in Sicily (named *Barna*), one in Egypt (*Emese*) and one disappeared in Libya (*Viki*).

**Barna** travelled about 1535 km in total from his base in Ukraine



János Bagyura with a tagged Saker male.

to Sicily. Unfortunately 5 days of data were lost due to low voltage of the PTT (from lack of sunshine) just at the start of his migration. We could track him again once he was already on the Croatian coast. Based on the data from the Croatian coast to Sicily (12 location points, 25/10/2007 – 29/10/2007), Barna flew 161 km/day with an average speed of 40-50 km/hr above the sea, and 20-30 km/hr above mainland. He has since remained in Sicily, unfortunately close to the bird killers in Malta. Even Sicily is not the safest place, but hopefully he will be all right.

*Viki* completed about 1670 km from South Hungary to the Libyan coast (between 07/10/2007 – 11/10/2007). Based on the data of 16 locations (not counting the ones when she stayed within a few km for a couple

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Map shows movements of GPS PTT falcons within the Carpathian Basin



Movements of falcons: Green-Emese; Blue-Barna; Red-Viki; others stayed at home.