



Annexes to action C.8
“Reveal threats during migration/wintering”

2017

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C8. Reveal threats during migration/wintering

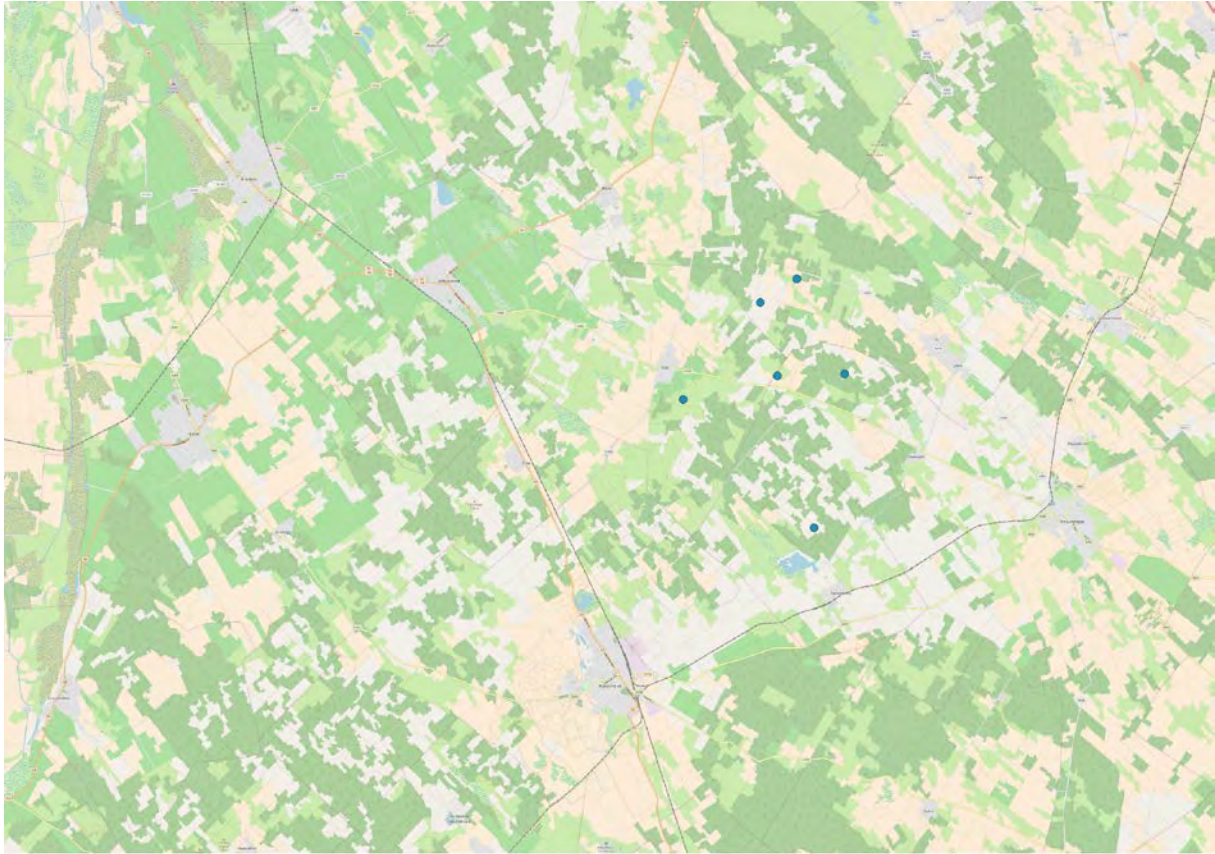
Hungary

Bird tagging activities with PTTs were successful in 2017, 3 birds arrived to the wintering sites.

One individual called Eleven (ID: 144355) was tagged in 08/06/2016 in KNPD (Kisapaj) and spent winter of 2016/2017 in the wintering grounds. After the arrival the breeding of this individual was successful and after the autumn migration it is currently in Botswana.

Besides this 4 adults were tagged in 2017:

1. **Éganya** (144364): this was the first individual to tag in the freshly formed population in the Dunántúl area, precisely in Dinnyés in July. The bird used a common migration route (Egypt, Sudan, Congo, Zambia) using Sahel as „stop-over site” and arrived to Botswana to spend winter there.
2. **Vendel** (144366): this bird was tagged on 24/06/2017 next to Szatymaz. The breeding was successful but the bird departed quite late, he stayed in Hungary until 25/09/2017 and left to Serbia. After 500 kms we lost his tracks in South Serbia where we assume the birds death.
3. **Hadnagy** (144635): tagged in the surroundings of Hódmezővásárhely on 24/06/2017. Arrived to the wintering sites in Northern Botswana on a similar route as the previous bird.
4. **Albert** (144367): tagged on 28/06/2017 next to Albertirsa. We followed the breeding and tracked the bird, even photo traps captured him, but he left for South after breeding and we lost his tracks in the area of Tázlár-Kiskunhalas, Hungary



Last tracks of Albert

We suspected electrocution and searched with the support of a search dog and a ranger from KNPD without success.

Currently 4 Rollers are tracked and they are in the wintering sites. Their tracklogs are continuous and good quality therefore we assume they will be suitable for analysis.

Preliminary results of PTT studies:

1. However, Finch et al. (2015) found slightly clockwise migration in Austrian population, all of our tagged Rollers follow counter-clockwise loop during spring migration
2. This migration pattern was also found in the Latvian population, as well.
3. We found weak migratory connectivity and rollers from the Carpathian basin most probably share wintering areas with the south-western roller populations (Finch et al., 2015, Rodriguez-Ruiz et al., 2014)
4. Ring recoveries suggest the existence of another migration pathway for the Hungarian roller population, but the counter-clockwise loop seems to be the most common migration route which occurs in any subpopulation in Hungary.
5. The migration route was shorter but lasted longer in autumn than in spring.
6. Stopover sites in Sahel belt were located in Chad and Sudan, four birds used the same region.
7. Crossing rain forest zone and wintering and eastern part of Africa can be challenging for adult rollers and highlight the importance of conservation measures in the countries of the Middle-East.

Technical experiences:

However PTTs produced by Microwave Telemetry Inc. provide efficient data to identify migration patterns (routes, stop-over sites, wintering sites) of European Rollers from Middle Europe, we experienced some difficulties with these products and the quality of the provided tracklogs. We wish for more stable and accurate data providers for a more efficient study. Therefore we wish to spend the action budget more efficiently with a change of product and company, we would like to continue the action with purchasing transmitters from the German Icarus project (<https://icarusinitiative.org/fieldworks-article-page>).

Price difference is big, 700 € / basic ICARUS tag (price depends on number of pre-orders) and 150 € annual service fee per tag for the ICARUS User Data Center which is significantly cheaper than the currently used tags.

Technical parameters of the products:

In short, basic ICARUS tags weigh <5 grams and in average solar conditions get **12 GPS points per day**, as well as **3D-acceleration, 3D-magnetometer and temperature data**. Expect one daily transmission of these data via satellite. Additional data (at good sunlight conditions) are written into the tag's memory for later readout with a portable base station.

The approximate costs will be:

- **500-700 €** / basic ICARUS tag (price depends on number of pre-orders)
- **150 €** annual service fee per tag for the ICARUS User Data Center

Geolocators:

Last year we ordered 90 geolocators and deployed all of them to adult birds in the following localities:

Kiskunság National Park Directorate (40 pcs)

Körös-Maros National Park Directorate (15 pcs)

Hortobágy National Park Directorate (15 pcs)

Bükk National Park Directorate (20 pcs)

To get data from the geolocators we

Getting data from geolocators is only possible with the return of the devices therefore we try to recapture as many adult birds as possible. Data analysis and publication are planned with the cooperation of Swiss Ornithological Institute between 01/07/2018 and 31/12/2018.

C.8 A vonulás/telelés során fellépő veszélyek feltérképezése

2015-2017 között a Milvus Csoport tagjai több mint 400 (adult és pullus) szalakótát jelöltek meg színes- és fémgyűrűvel. Ezekből eddig két madár került meg Magyarországon, valamint több helyi, illetve országon belüli, rövid elmozdulású megkerülésünk is van. Ezen kívül, a munkaterületeinken eddig három magyarországi és két vajdasági madár is kézrekerült. Annak érdekében, hogy a gyűrűs madarak által szolgáltatott adatok hatékonyságát megnöveljük, a 2018-as évre az eddigieknél nagyobb számú öreg madár befogását/visszafogását tervezzük.

További infók: <https://www.youtube.com/watch?v=icald2k2Pd4&feature=youtu.be>



1 Kép. Öreg és fiatal szalakóták romániai munkaterületen használt színes gyűrűvel



2 Kép. A jelölési munka során kézre került vajdasági és magyarországi gyűrűvel jelölt szalakóták

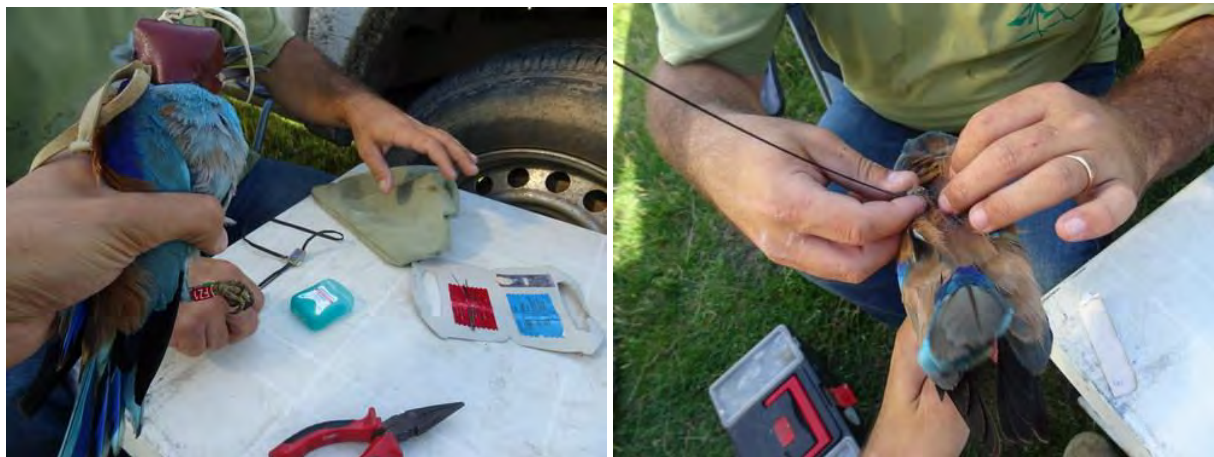
Romániában 2017 nyarán 6 PPT jeladó és 25 geolokátorok lett felszerelve öreg szalakótákra. A 2018-as terv további egy műholdas jeladó és további 25 geolokátor felszerelése. A tavalyi évhez hasonlóan, idén is részt veszünk a Maláriatesztes Programban.

Vonatkozó információk:

<http://rollerproject.eu/hu/content/elindultak-romaniai-jelados-szalakotak>

<http://rollerproject.eu/hu/content/marton-romaniai-jelados-szalakota-az-afrikai-esoerdok-ovezetebe-ert>

<http://milvus.ro/Hu/victor-bolomey-marton-si-alte-dumbravence-cu-transmitatori-satelitari/9145>



3 Kép. Jeladó szerelése öreg szalakótákra



4 Kép. Műholdas jeladóval felszerelt öreg szalakóták, elengedés előtt



5 Kép. A Maláriateszt Programhoz szükséges vérminták adatainak rögzítése