PROGRESS REPORT III
TO
THE RUFFORD FOUNDATION

Caption for cover photo: Three chicks of Saker Falcon on their artificial nest. Photo taken on 14th of June, 2021.

Brief information:

Project title:	The initial genetic investigation of Saker Falcon in Mongolia and its electrocution in southern Mongolia
Project ID:	30787-1
Project type:	1st Rufford Small Grant
Reporting date:	July, 2021
Project leader:	Onolragchaa Ganbold, PhD

The initial genetic investigation of Saker Falcon in Mongolia and its electrocution in southern Mongolia

1) Executive summary of the project

Saker falcon (*Falco cherrug*) is a globally threatened bird, also known as the national honored bird of Mongolia. Birdlife International categorises this large falcon as endangered due to rapid population decline, especially in the Central Asian breeding range, including Mongolia. Furthermore, the genetic characteristics in the Asian population are poorly known. Thus, we aimed to conduct surveys on the electrocution of this species and other raptors in southern Mongolia, and to investigate their genetic characteristics using samples from electrocuted birds (as tissue) and blood samples from live birds from historic nesting sites in Mongolia. We conducted three electrocution surveys in southern and eastern Mongolia, and one class lesson for 7th grade middle school students in 2020.

2) Previous field surveys for electrocution

In May 2021, we conducted electrocution surveys in southern Mongolia, including Bayankhongor, Ovorkhangai, Omnogobi, and Dundgobi provinces. These surveys were conducted between 13th and 19th May 2021. From this survey, we found a total of 67 carcasses of 13 avian species. Of these, 62 were victims of electrocution, while remaining 5 were victims of wire collision. The globally threatened saker falcon was recorded as the most frequently electrocuted species (with 17 carcasses).

3) June survey checking historic nesting sites

During the June 2021 surveys, we visited historic nesting sites of saker falcon in southeast Mongolia (Ikh Nart Nature Reserve (INNR), using natural nests), and eastern Mongolia (Galshar village, using artificial nests). In INNR, we found three active nests (compared to four in the previous year). Of these was found on an elm tree while the remaining two were on rocks (**Figs. 1-4**). We conducted the INNR survey between 16th and 21st June 2021. INNR is known as a good nesting site for many species of bird of prey, in particular cinereous vulture and lesser kestrel. In Galshar, there were four active nests of saker falcon. The survey was carried out from 23rd to 26th June 2021. In 2004 and 2005, a group of scientists from Mongolian National University of Education led by Prof. Munkhbayar Khorloo, had constructed these artificial nests to support birds of prey , particularly saker falcon (**Figs. 5-8**). The team also aimed to improve the

reproductive rate of saker falcon. They used old car tyres to construct the artificial nests. For a long time, the majority of these nests were broken and stolen.

4) Genetic samples

Blood samples were taken from all nests (including one chick) of saker falcon and preserved on the FTA cards for further experiments.

5) Further activities in 2021

In July 2021, we will conduct field surveys of electrocution of saker falcon in several local regions in southern Mongolia. In addition, our team will visit several rural schools for our workshops and lessons in September or October 2021.

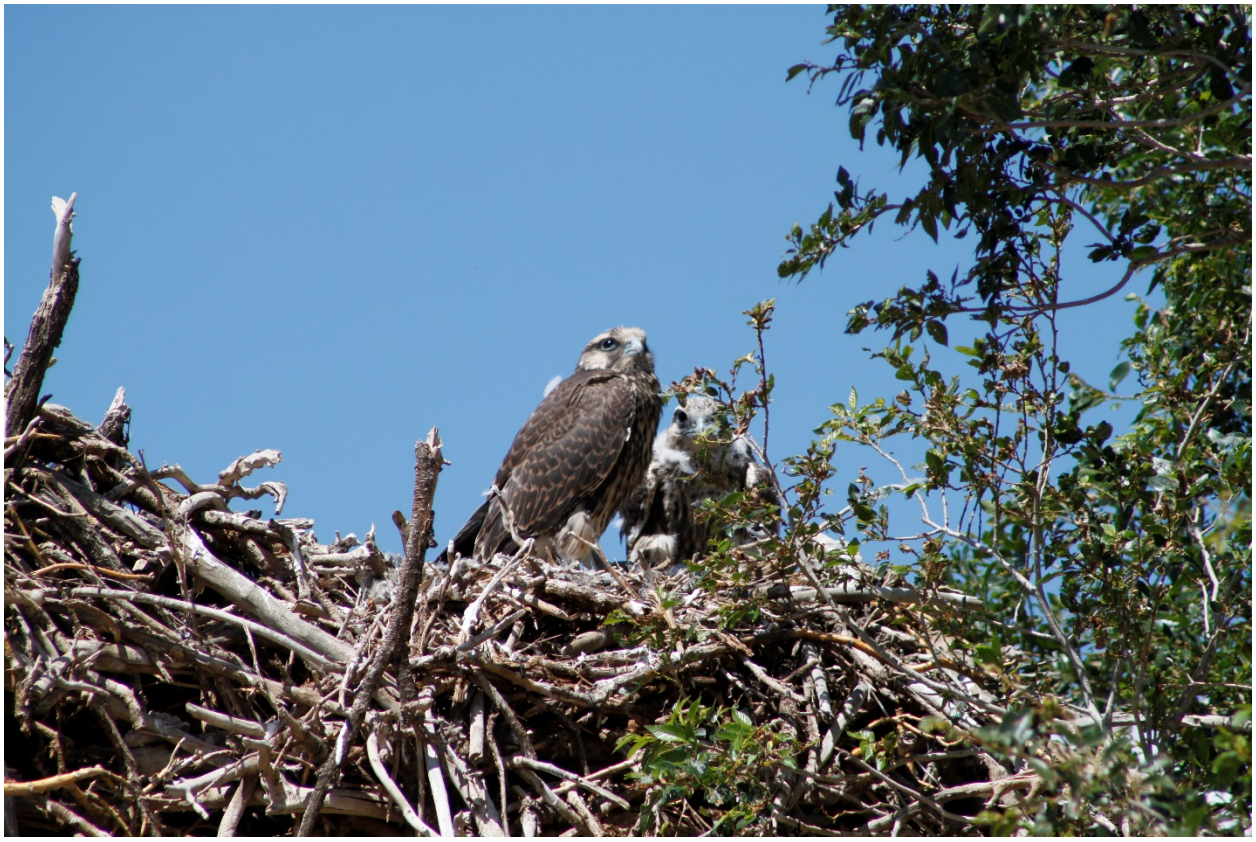

Figure 1. Two chicks of Saker Falcon on their Elm Tree Nest, INNR.

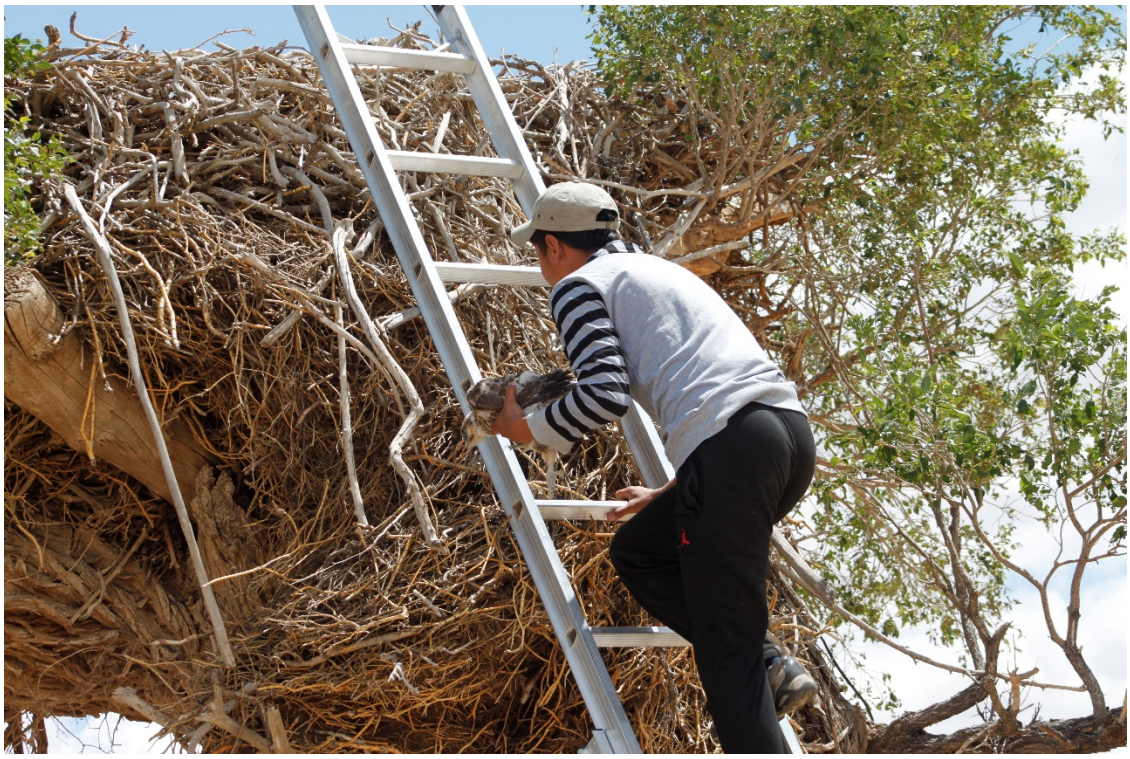

Figure 2. One of our researchers climbing Elm tree to reach the nest.

Figure 3. An adult Saker Falcon on the nest with her 4 chicks

Figure 4. An adult Saker Falcon (pair of bird that on Fig.3) perching on the rock next to the nest.

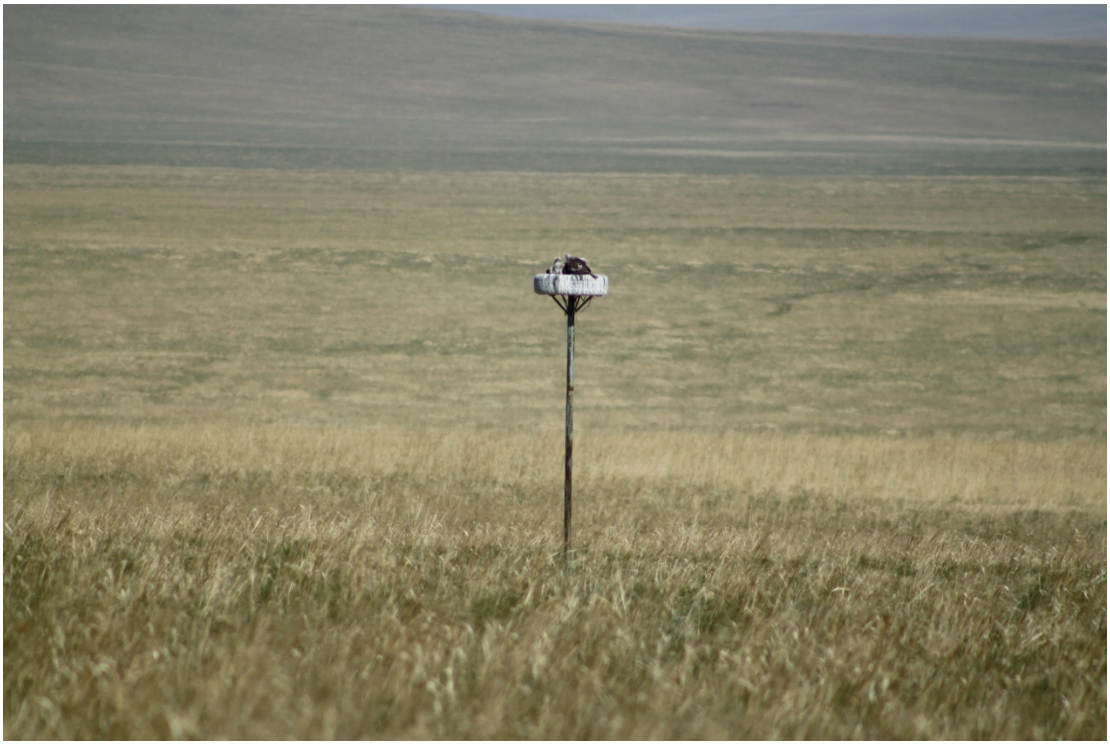

Figure 5. The artificial nest of Saker Falcon, Galshar village Oims Mnt.

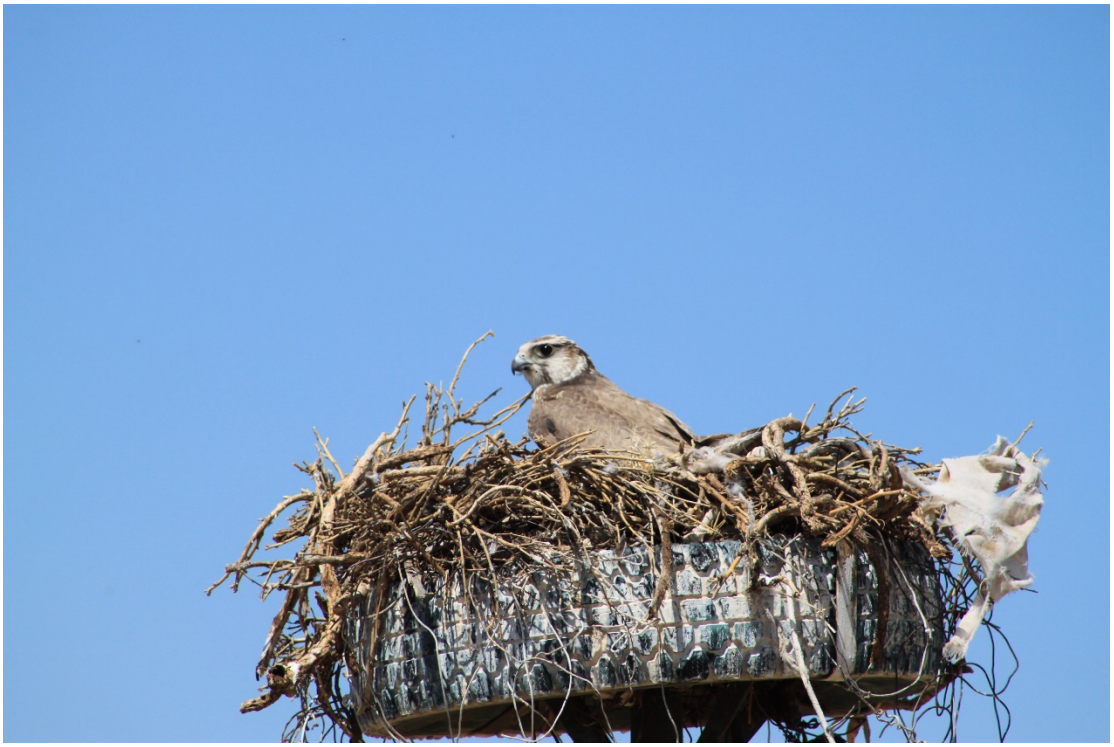

Figure 6. An adult carrying her young chicks. Galshar village, Oims Mnt.

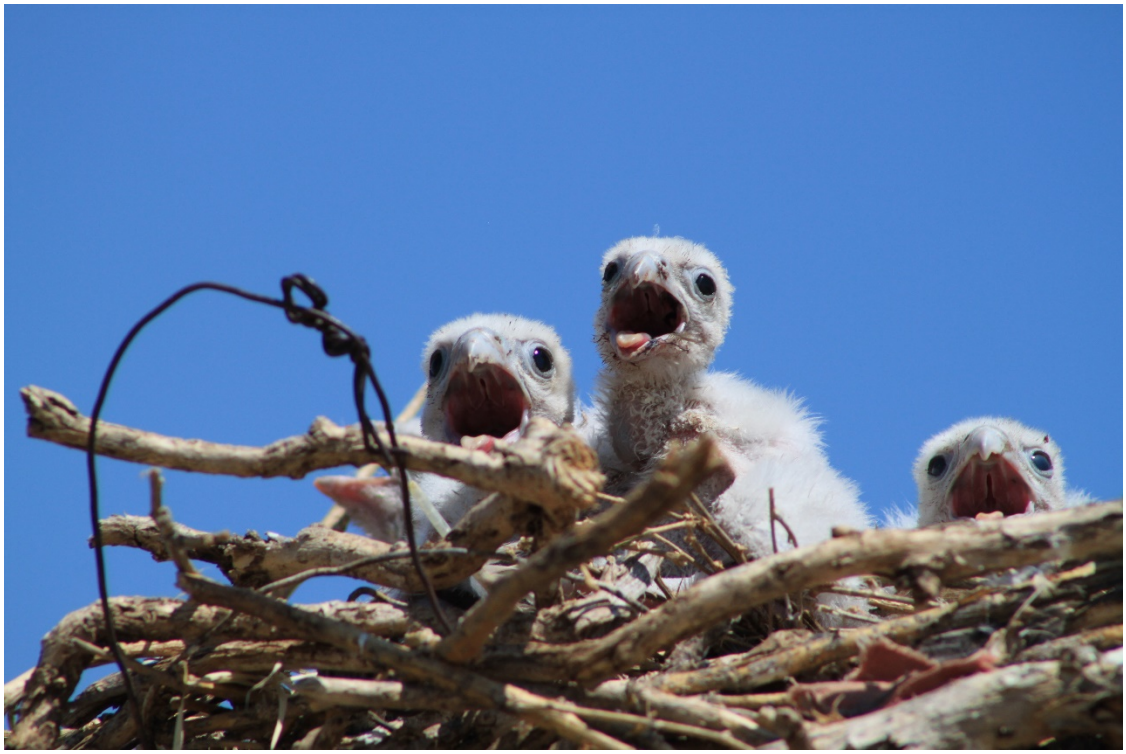

Figure 7. Four Saker Falcon's chicks on the artificial nest. Galshar village, Oims Mnt.

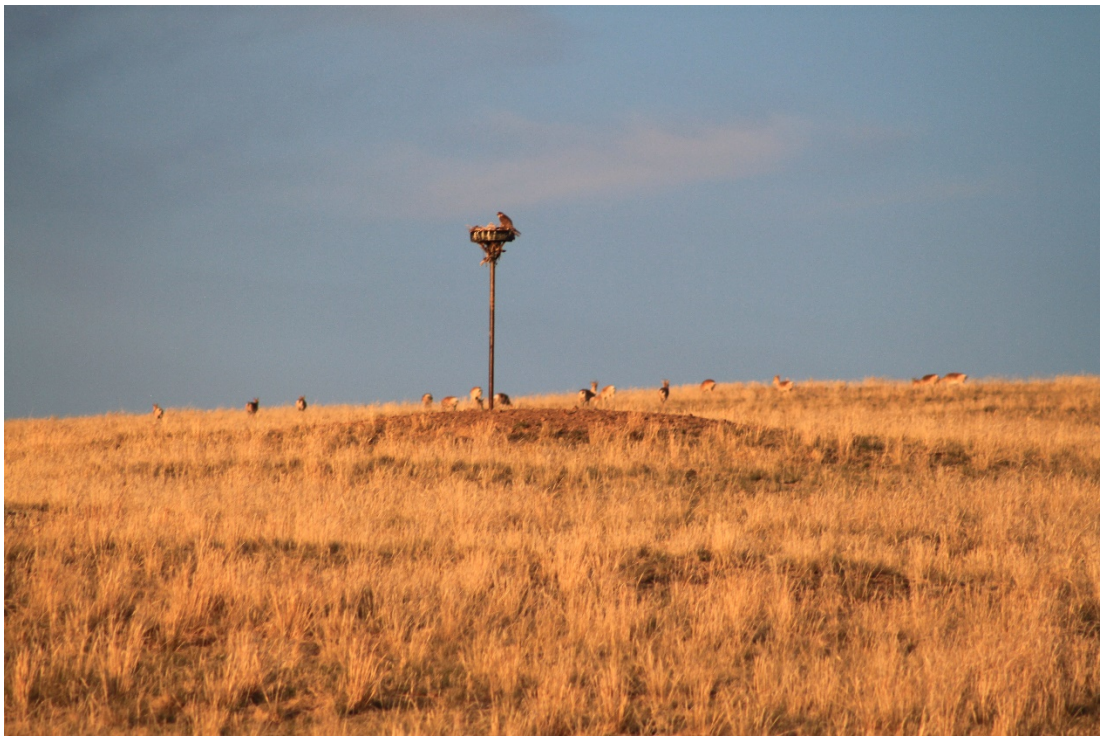

Figure 8. The artificial nests were constructed in the great Mongolian steppe (Mongolian gazelle also in the photo)

Photos taken by Onolragchaa Ganbold and Rentsen Oyunbat