

# RELATIONSHIP BETWEEN CENTRAL AND EAST EUROPEAN SAKER FALCON POPULATIONS BASED ON RESULTS OF RINGING SCHEMES AND SATELLITE-TRACKING

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#### Aims of the study

- Mapping post-fledging dispersal, migration routes, temporary settlement areas (TSAs), wintering places and subadult nomadic movements
- Proving any possible cross-breeding (gene flow) between the Central and the East European populations
- Analysing threats on Sakers

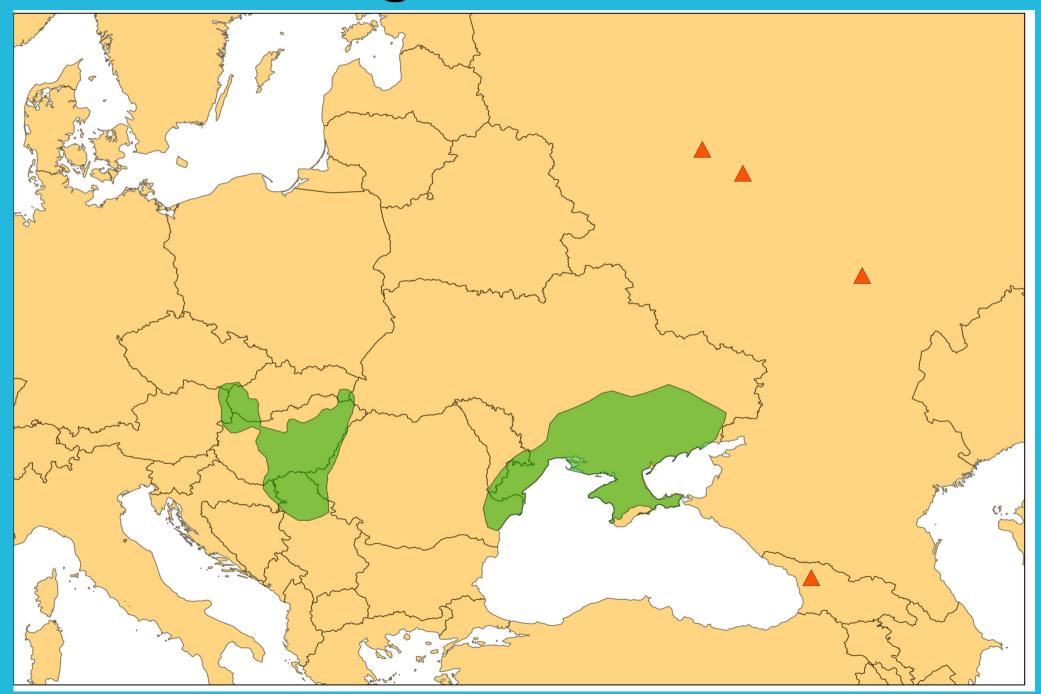


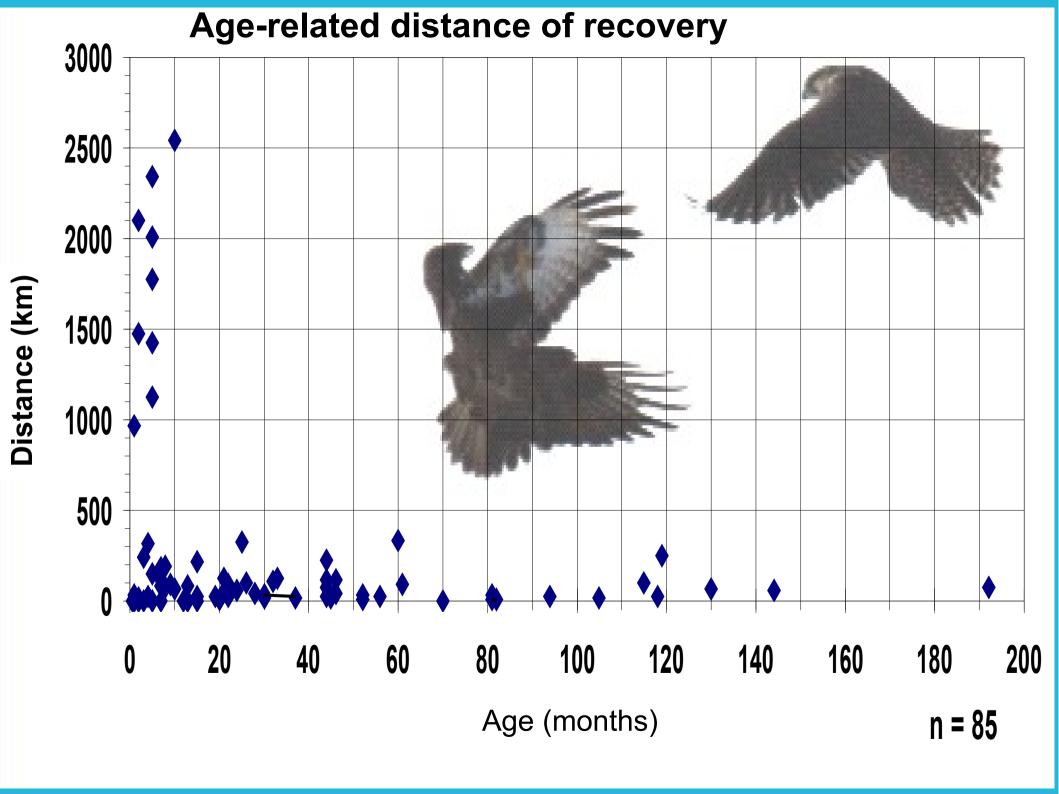
#### **Methods**

- Ringing and analysing the results of regular ringing of Saker Falcons in Hungary and Slovakia, as well as results of occasional ringing in other countries – more than 3000 Sakers have been ringed since 1980 only in HU and SK
- Mounting juvenile Sakers in Hungary, Slovakia, Romania and Ukraine with solar-powered, 22-gram, Argos/GPS enabled satellite-received transmitters – 81 juveniles in 5 countries have been tagged between 2007 – 2011 /Most of them were financed by the EU LIFE-Nature programme supporting the Central European Saker Falcon conservation between 2006-2010 and 2010-2014

	Hungary		Slovakia		Romania		Ukraine		Czech Republic		Total
	M	F	M	F	M	F	M	F	M	F	
uvenile	24	22	0	10	0	2	5	3	1	0	67
Adult	10	2	0	0	0	0	0	2	0	0	14
<b>Total</b>	34	24	0	10	0	2	5	5	1	0	81

# Ring recoveries





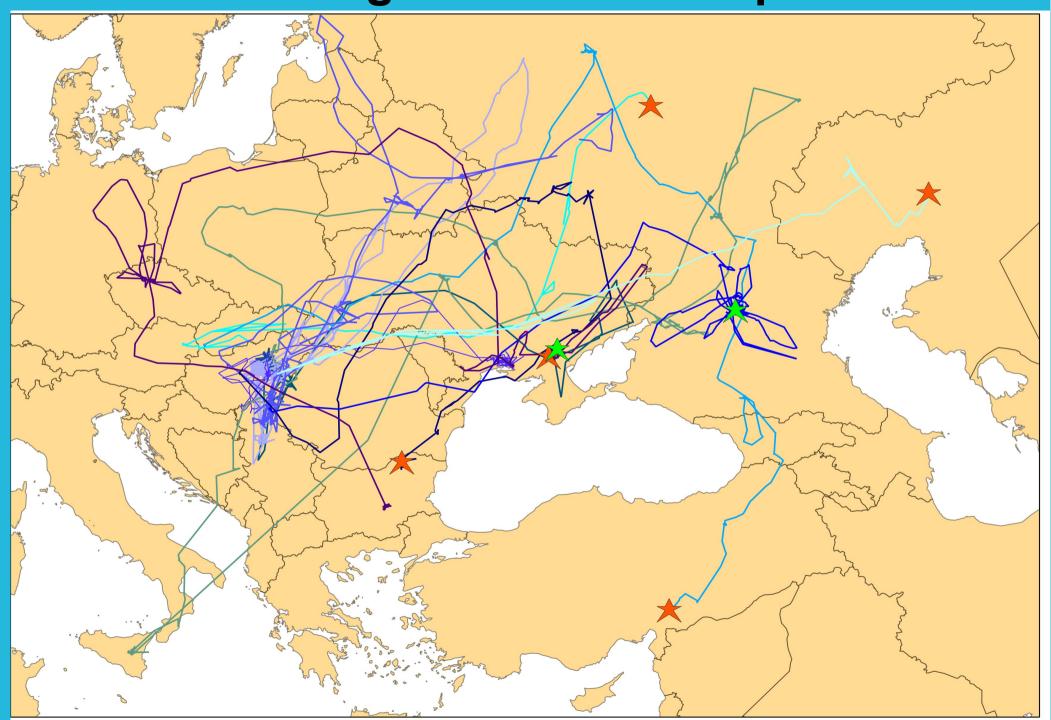


#### SENDING GPS POSITIONS VIA ARGOS GPS Satellites Argos Satellite Processing Center Argos antenna Argos and GPS locations Argos transmitter GPS GPS receiver antenna User

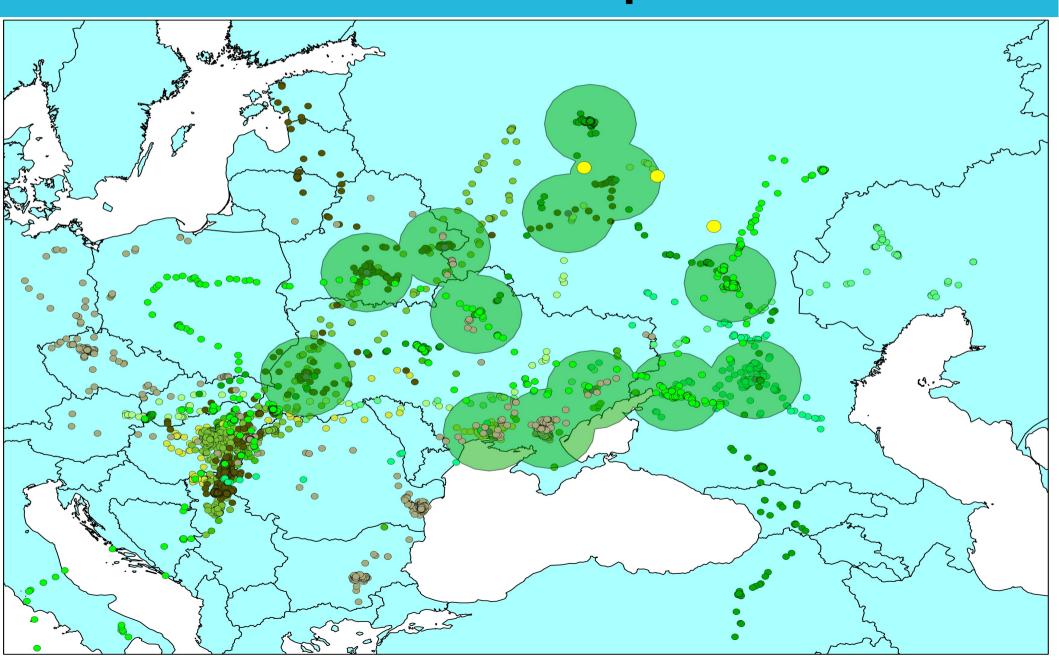
## **Accuracy of the system**



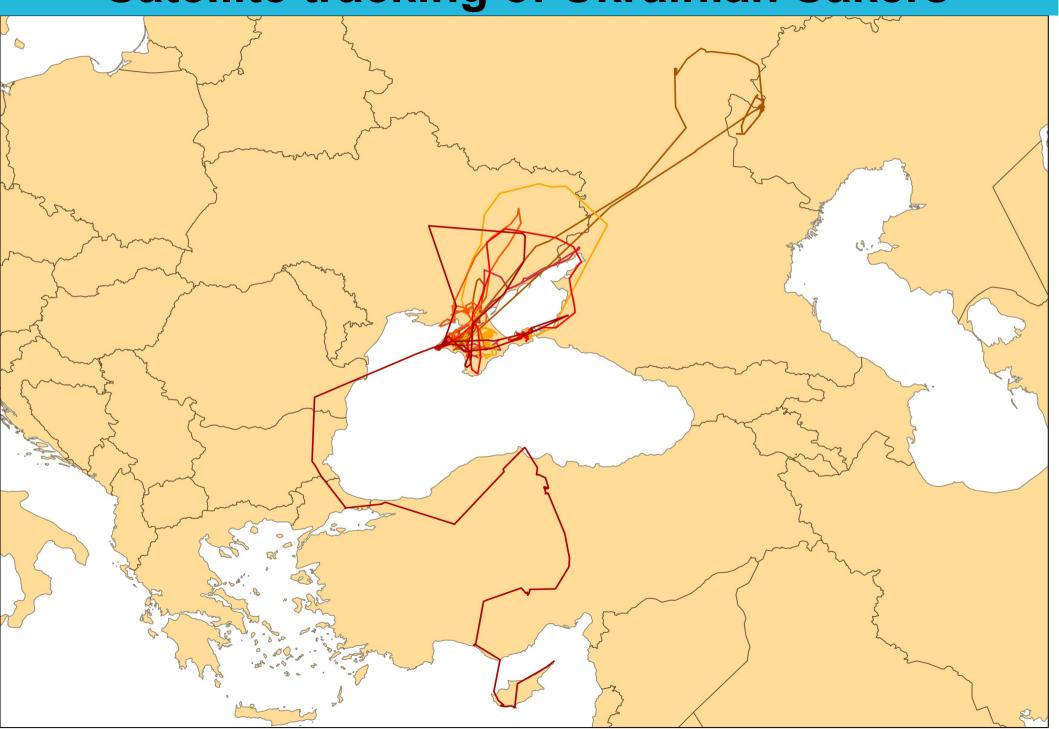
#### Satellite-tracking of Central European Sakers



#### Major TSAs of Central European Sakers in East Europe



## Satellite tracking of Ukrainian Sakers



#### Main results and conclusions

- Central European Sakers regularly visit East Europe including the breeding area of the East European Saker population
- CE Sakers visit East Europe mainly in summer at their age of 1 3 cy

   after that age they (especially the males) start establishing eyries in
   their fledging region, but certainly their 'natal' population
- Post-fledging dispersal and 2cy nomadic movements of the Crimean juvenile Sakers show similar east-northeast pattern as that of the CE Sakers
- Neither ring recoveries, nor satellite tracking has proven any visits of East European Sakers to Central Europe
- Ring recoveries and satellite tracking has not proven the crossbreeding between the two populations – such event cannot be excluded, however its probability seems to be low
- Electrocution is a major threat on Sakers also in East Europe

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