

GOJAGE 2 BROADER ACTIVITIES (11th of Oct - 25th of Nov 2012)

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To achieve: preventing and managing conflicts between jackals and human activities as hunting or livestock farms and establishing coordination with authorities in all European countries over jackal specific ecological systems management, based on population parameters dynamic.

Golden jackal (*Canis aureus*, Linnaeus 1758) population monitoring

Ecological factors and estimates of densities in natural areas of Central and SE Europe

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These activities follow GOJAGE 1 (see report [here](#)) initiated in spring 2012 by Czech Republic team of GOLDen JAckal informal study Group in Europe www.goldenjackal.eu. Jaroslav Cervinka and Martin Salek had an innovative idea to study habitat preferences of jackals looking of jackal density level and habitat type for about 280 calling stations in Romania, Bulgaria, Serbia and Croatia.

During the autumn stage GOJAGE 2 (11th of Oct - 25th of Nov 2012) we pretend to follow the existing GJ SITES NETWORK installed during GOJAGE 1 activities and add new areas of study within Hungary, Greece, Italy and Slovenia.

All teams of the 8 countries (RO, BG, RS, HR, HU, GR, IT, SI) in central and SE Europe will use bio-acoustic stimulation, a non-invasive technique, friendly nature, described and used for the first time in Europe by Giannatos during 2001-2003 periods to analyse, successfully, the population status in Greece in a program promoted by WWF (see method [here](#) on 2nd page).

Methodology: The teams are invited to do survey in 15-30 calling stations and to register data as is shown in the MVA sheet uploaded on free website ([download here](#)).

Jackal Ecology Task Force JETF in Europe will analyse our results and will elaborate the necessary framework of conservation action plan of jackal species in Europe.

In Europe, population size and trend are primary factors that determine whether species are listed as endangered or threatened under the Habitat Directive 92/43/CEE, as well as under the Bern Convention (1979), the two major pan-European legislative frameworks for species conservation. Under these frameworks, all countries are required to secure that endangered populations are subject to a robust monitoring program with the goal of showing if the population of interest has a stable or increasing trend (Marucco and Boitani, 2012)

The present European range of the jackal species encompasses Greece, Albania, Croatia, Serbia, Slovenia, Bosnia-Herzegovina, Bulgaria, Romania, Czech Republic, Slovakia, Hungary, Italy, Austria, Switzerland, Germany, Republic of Moldavia, Ukraine, and seems to be in increasing expansion. Such expansion is mainly sustained by sub-adult vagrant males, but in many areas there are reproductive groups that tend to establish new reproductive households (Italy, Slovenia, Hungary, Austria, etc.), sometimes with invasive modalities. In various countries the species has been recently protected by hunting law, in other it is controlled by specific game-bag programs. There

are various hypotheses about the reasons of its present expansion, but it seems to be probable that the main causes should be related to the influence of the human being on landscapes and biocenosis. In the Balkans, for example, its expansion started in '50s of the XX century, when the populations of wolves were nearby exterminated. In the whole Europe the species prefers low to medium altitudes, particularly dwelling in wooded or open human-dominated landscapes, with a clear-cut preference for wet biotopes, riverbeds and riparian woods. The main conservation problems for the species in whole Europe are surely related to aggressive hunting campaigns, illegal poaching and trapping, road mortality and to erroneous killings due to misidentifications during fox culling (Lapini and Banea, 2012).

The ultimate goal of population monitoring is to detect a change in both magnitude and direction for one of the population parameters (Marucco and Boitani, 2012).

After **GOJAGE 2** broader activities in natural areas located in 8 countries of Central and SE Europe, where are located the supposed main routes of jackal movements and source of jackal population expansion, we hope to draw a well define SITES NETWORK to propose continuous monitoring. By this proposal we will advise population dynamic analyses to find the carrying capacity level in sources areas with the aim to avoid crash patterns or collapse of entire population, as occurred in the past.

Ecological network analyses in these areas will be our next proposal and one of the most important issue is establishing the main biotic relations, by modern surveillances and using the newest image tracking methods, especially with close-related species as wolves, lynx, foxes or meso-predators, but with downer level representative species of the web food, also. The objective is to set the key (node) species of these jackal ecological systems to ensure the optimum measures to protect them and promote biological diversity, in the highest degree necessary for environmental health.

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