

Report of the Short Term Scientific Mission COST Action CA15116 (ASF-STOP)

“Training on tools to estimate wild boar population status”

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Background

The opportunity to conduct an STSM at IREC in Spain was kindly enabled by the COST Action CA15116 (ASF-STOP). My motivation to apply to an STSM at IREC in Spain was to learn more about different wild boar censuring, monitoring, capturing and collaring methods to be able to determine which state-of-the-art methods might be the most suitable and applicable in regions such as Iran or Germany. The acquisition of respective methods would allow the implementation of a planned comprehensive field studies of wild boar population density as well as monitoring of african swine fever virus (ASFV) and peste des petits ruminants virus (PPRV) in wild animal populations in Iran, particularly wild boar.

Short Term Scientific Mission

The STSM was separated in one week of practical experience at the beautiful Doñana National Park in Andalusia, Spain, and in one week of data analyses at the IREC, Ciudad Real. During the first week two Russian colleagues and I were closely supervised and instructed by Francisco Ruiz-Fons, Pelayo Acevedo and his Master student Pablo Mayordomo Palencia in different methods to measure density, abundance, activity and speed of wild animals, particularly of wild boar. The practical methods we learned included camera trapping, trapping of wild boar with different live traps, perpendicular transects by car and foot, necropsy of wild boar and the general use of telemeter, radio collars and proximity loggers. Furthermore, we were instructed to consider which (risk) factors (e.g. habitat, feces deterioration, sample size, abundance of different animal species) have to be taken into account before, during and after the performance of field studies.

We conducted various transects with cars and by foot across different habitats and at different times of the day and night. We learned how to use spotlight, laser distance-measurement sensors, GPS devices and the “CyberTracker” software for the detection and documentation of different wild animal species and their feces.

During the second week, data collected at Doñana National Park and additional exemplary data were analyzed using free software programs available online. Joaquín Vicente Baños instructed us about the use of the software “Distance” to analyze data from distance sampling. We learned how to evaluate which models are most suitable for the calculation of population density. With Pablo Mayordomo Palencia we analyzed the pictures and videos of Doñana to calculate speed, activity and density of animal populations. The last days were dedicated to programming and application of the software programs “CyberTracker”, “qGIS” and “R software” with Pelayo Acevedo, which allow to set up and analyze representative and comprehensive field studies, respectively. With the theoretic part of the course, previous knowledge of the practical field work at Doñana was deepened and beneficially extended. The whole course has provided us a very valuable and solid background for prospective field projects in Russia, Iran or elsewhere.

After the two weeks of the STSM, I strongly feel that I can safely apply the different methods I have learned at the Doñana National Park and at IREC for future field studies.

In conclusion, due to the low number of participants together with the comprehensive program that was set up for us, the learning success was very efficient - not least because our supervisors were highly motivated and answered all our questions! Beside the censuring tools, we learned a lot about the fauna and flora of Doñana and the surrounding of Ciudad Real and Spanish culture. The organization of the research program, accommodations and food at all times of the day was excellent. I would like to thank the whole team, particularly Fran and Pelayo, for this exceptional experience and cordial hospitality!



Fig. Pablo Mayordomo Palencia, Ivan Yashin, Pelayo Acevedo, Svetlana Konnovass, Claudia Schulz, Francisco Ruiz-Fons (left to right), Playa de Matalascañas, Spain.