The 36th International Symposium on Remote Sensing of Environment,
11 – 15 May 2015, Berlin, Germany, ISRSE36-45

Combining Earth Observations with animal tracking data – outlining the AniMove.org outreach and education approach

M. Wegmann [a] , K. Safi [b] and N. Pettorelli [c]

[a] Department of Remote Sensing, University of Wuerzburg in cooperation with German Aerospace Center (DLR), Earth Observation Center, German Remote Sensing Data Center – martin.wegmann@uni-wuerzburg.de
[b] Max-Planck Institute for Ornithology, Radolzell – ksafi@orn.mpg.de
[c] Zoological Society of London - Nathalie.Pettorelli@ioz.ac.uk

THEME: National, regional and international programs including education and outreach

KEY WORDS: international training, ecology, animal movement, interdisciplinary, spatial modelling, conservation

ABSTRACT:

The emerging field of movement ecology is highly challenging due to its interdisciplinary nature. Including earth observation data and products into the analysis of animal movement analysis for conservation purposes indeed requires a sound understanding of the needs and obstacles in conservation as well as the technical capabilities associated with animal movement and remote sensing analyses. Bridging the gaps between these disciplines is at the heart of Animove – a collective of international researchers committed to support the emergence of interdisciplinary and collaborative work at the interface between ecology, remote sensing and/or conservation.
Animove's main focus is training in a variety of spatial modelling techniques that allow the combined use of animal movement data and remote sensing information. All the shared technical expertise is embedded in conservation frameworks to promote a high level of integration between applied ecologists and remote sensing scientists. AniMove training sessions rely exclusively on OpenSource software such as R, GRASS or QGIS, so that participants are not dependent on their institutions' software support strategy to use the acquired knowledge.

Training is designed to cover coursework as well as project work. The opportunity to study theoretical examples while working on the students' own datasets has proven to be highly valuable and appreciated by the attendees. Allowing the students to work with their own data sets also ensures that practical problems can be discussed and solved during the training session. This promotes the establishment of a long-lasting relationships among students and lecturers and a high motivation for the participants to continue working in this interdisciplinary field.

The high demand for AniMove.org courses resulted in training sessions currently being organized in North-America, Africa and South East Asia. Moreover specialized software packages designed to support the course are being developed, while other forms of outreach activities such as workshops and symposia are being planned.