

Euro-BAM Newsletter

June 2004

On July 8, 2003, the first Euro-BAM research network meeting was held at the University of Amsterdam. This was a first initiative to create a network to facilitate cooperation in the development of a European Bird Avoidance Model. Participants of the first meeting joined from Belgium, England, Germany, The Netherlands, Norway and Sweden and are listed at the end of this newsletter. This newsletter is to inform members of the network, IBSC and any other interested parties about progress made in recent months. This network is in open to anyone interested in actively participating.

Current aims of the EuroBAM research network:

1. Exchange information on local research and future initiatives
2. Coordination of activities and exchange of research modules
3. Exchange of knowledge and data
4. Connection between operational systems and researchers
 - 4.1. The end users, pilots, are mainly interested in the final product. They should be included in the network, but in a later stage of the project
 - 4.2. Data providers (mostly NGO's) may be included in the network as well, but we should keep the group small and independent.
5. Search for financial support for future collaboration

Recent developments

Update of BAM development in the Netherlands

Currently, several models are at various stages of development within the framework of the BAM being developed at the University of Amsterdam.

- Regression models have been developed predicting the flight altitudes of soaring and gliding birds including the buzzards, black-headed gulls and the swifts in relation to local meteorological conditions.
- Discrimination analysis is being used to differentiate between flight strategies of gulls based on meteorological conditions.
- Regression models predicting nocturnal migration based on meteorological conditions and migration intensity in previous nights have been developed.
- A simulation model of passerine migration integrating dynamic and spatially distributed data has been programmed in Matlab and integrates wind speed and direction measurements.
- Visualization of the simulation model output has also been programmed in Matlab.
- Spatial statistics have been used to interpolate bird densities based on various ground surveys in a GIS environment. Regression analysis is currently underway testing the influence of various environmental factors on bird distributions.
- Various statistical and computational techniques are being used to model bird densities on airfields.
- A proposal for developing a Bird Avoidance System has been prepared and will soon be submitted to the Royal Netherlands Air Force.

- It is the intension of the research team to publish at least some of these results in scientific journals.

Cooperation

- Initial contact has been made between researchers at Vogelwarte, Helgoland in Germany and University of Amsterdam in regard to sharing analysed surveillance radar data on bird migration.
- Prof. Edwin Herricks from the Center of Excellence, University of Illinois at Urbana-Champaign, visited the University of Amsterdam to present their work on: “The Development of a National Wildlife Hazard Advisory System (WHAS)” for airfields.
- Contact has been made between the BAM group at UvA and Prof. Thomas Alerstam from the migration ecology group in Lund, Sweden, regarding possible topics for scientific cooperation. In addition, there is some interest there in exploring the possibilities for radar networks in Scandinavia and Europe

Update of BAM development in Germany

Changes in the organizational Structure of the Service resulted in an increase of staff. Efforts were concentrated on

- Operating, maintaining and administrating the operational radar based bird observation system.
- Transitioning the automated (BIRDTAM) warning system into a new IT-Environment.
- Developing new display and analysis tools for the German Real Time Bird Avoidance System

Update of BAM development at the USAF Academy in the USA

The Institute for Information Technology Applications at the US Air Force Academy is hosting a research group on BAM, within which Wilhelm Ruhe is participating.

Recent and current efforts are

- Updating the historic BAM for the contiguous USA with the most recently available data.
- Creating a new website for BAM as part of the AHAS-System.
- Developing a BAM for Alaska, using existing GIS-Technology and more sophisticated approaches to overcome the lack of ornithological data. Currently the use of remotely sensed habitat data is explored for more realistic spatial data interpolation.
- A kick off conference has been held at the Academy to develop a strategic plan for future BAM efforts.

Technical news from the Belgian Defense

The Belgian Defense (Air Component) has approved the purchase of the ROBIN4-system, also purchased by the Royal Netherlands Air Force. The expected installation and start of operations is foreseen mid 2005. By using the same systems, RNLAf and the Belgian Defense can create a "Be-NI" network, integrating their radars into one ROBIN-network.

Next EuroBAM research network meeting, October 2004

The next meeting of the EuroBAM research network will be scheduled some time at the end of October at the University of Amsterdam, The Netherlands. The meeting will be one day of presentations on current developments in bird avoidance modelling. There will be an additional 1-2 days of computer workshops on modelling for those people that are actively involved in modelling projects. A more detailed schedule and list of speakers and participants will follow. The schedule is open to suggestions and new participants are welcome. The final program and schedule will be announced by the end of the summer.

Participants of the EuroBAM kickoff meeting, Amsterdam July 8th, 2003

BELGIUM

Johan Detruyer Cpt
Material Resources, CIS
C² & Warfare, BATM-CNS
T: +32 2 7013194
F: +32 2 7016827
johan.detruyer@mil.be

ENGLAND

Richard Budgey
Central Science Laboratory
Sand Hutton
York YO41 1LZ
T: +44 1904 462097
F: +44 1904 462111
r.budgey@csl.gov.uk
www.csl.gov.uk

GERMANY

Wilhelm Ruhe
GeoInformation Service
Bundeswehr
Postfach 1211
Mont Royal
D-56841 Traben-Trarbach
T: +49 6541 18734
F: +49 6541 18767
WilhelmRuhe@awg.dwd.de

NORWAY

Christian K. Aas
Zoological Museum
University Oslo
Sars gate 1
N-0562 Oslo
T: +47 22851730
F: +47 22851837
c.k.aas@nhm.uio.no

SWEDEN

Per-Goran Bentz
Sturnus-ABAS
Pysslingevägen 3
SE-239 42 Falsterbo
T: +46 30471957
F: +46 40471908
pgb@sturnus.se

THE NETHERLANDS

Willem Bouten W.Bouten@science.uva.nl
Judy Shamoun Baranes Shamoun@science.uva.nl
Institute of Biodiversity and Ecosystem Dynamics
Physical Geography
University of Amsterdam
Nieuwe Achtergracht 166
1018 WV Amsterdam
T: +31 20 5257451
F: +31 20 5257431
www.science.uva.nl/research/ibed/FG

T: +31 20 5257412

T: +31 20 5257436

Jelmer van Belle jelmer.van.belle@hetnet.nl
Luit Buurma luitbuurma@worldmail.nl
Albert de Hoon albertdehoon@hotmail.com
Hans van Gasteren sneb-1@stl.af.dnet.mindef.nl
Royal Netherlands Air Force
POBox 20703
2500 ES Den Haag

T: +31 70 3397250

T: +31 70 3396346

T: +31 70 3396301

T: +31 70 3396350

Henk Sierdsema
SOVON
Rijksstraatweg 178
6573 DG Beek-Ubbergen
T: +31 246848145
F: +31 246848122
Henk.Sierdsema@sovon.nl
www.sovon.nl