

Program:

Thursday 20.11.2008

- 12:00 – 13:00 **Registration**
 13:00 – 13:15 **Opening talk**
 Dr. Harald Benke, Director
 German Oceanographic Museum
- 13:15 – 13:45 **Monitoring marine mammals in Marine Protected Areas (MPAs) –**
 Federal Agency for Nature
 Conservation (pending)
- 13:45 – 14:15 **Harbour porpoises and seals in the German Baltic Sea – issues of monitoring marine mammals**
 Michael Dähne
 German Oceanographic Museum
- 14:15 – 14:45 **Determining abundance and distribution of seabirds by using high-quality aerial photographs**
 Ib Krag Petersen, National Environ-
 mental Research Institute Denmark
- 14:45 – 15:15 **Coffee break**
 15:15 – 15:45 **Mapping and monitoring High Arctic permafrost landscapes with drones, balloons and kites**
 Sina Muster, Alfred Wegener
 Institute for Polar and Marine
 Research, Potsdam
- 15:45 – 16:15 (pending)
 16:15 – 16:45 **Using UAVs for marine mammal monitoring within the project ,Remplane‘**
 Dr. Görres Grenzdörffer and
 Torsten Foy, Rostock University
- 19:00 **Social Event**

Dinner under the
„Giants of the Sea 1:1“
 Exhibition

Friday 21.11.2008

- 09:00 – 09:30 **An insight to the development of autonomous flight navigation of aerial vehicles**
 Dr. Patrick Reidelstürz,
 chair for flight dynamics &
 flight control, Bundeswehr University
 Munich
- 09:30 – 10:00 **Theoretical and experimental results of attitude determination on board of small UAV's**
 Dr.-Ing. Marco Buschmann.
 Mavionics GmbH
- 10:00 – 10:30 **UAV based Virtual Monitoring - Real-time Geo-referencing and Integration of Video Imagery with Virtual Globes**
 Hannes Eugster and
 Prof. Dr.-Ing. Stefan Nebiker
 University of Applied Sciences
 Nordwestschweiz
- 10:30 – 11:00 **Coffee break**
 11:00 – 11:30 **UAV's of the ETH Zürich**
 Dr.-Ing. Henri Eisenbeiss,
 ETH Zürich (pending)
- 11:30 – 12:00 **Introduction to the remote sensing platform „Stuttgarter Adler“**
 Uwe Putze and Dr. Maria v.
 Schönermark, University Stuttgart,
 Institute for Space Systems
- 12:00 – 12:30 **SUSI – a UAV in duty for the Landesforst MV – a status report**
 Kai Jütte, State Forest Agency
 Mecklenburg-Western Pomerania
- 12:30 – 13:00 **Discussion**
 13:00 – 13:15 **Closing remarks**

meeresmuseum
 Old Town of Stralsund
 D-18439 Stralsund
 Fon: +49 3831 2650 210
 Fax: +49 3831 2650 209

ozeaneum
 Harbour
 D-18439 Stralsund
 Fon: +49 3831 2650 601
 Fax: +49 3831 2650 609

nautilus
 Dänholm Stralsund
 D-18439 Stralsund
 Fon: +49 3831 2890 10
 Fax: +49 3831 2890 20

naturium
 Darßer Ort, Darß
 D-18375 Bön
 Fon: +49 38233 304
 Fax: +49 38233 70448
 www.meeresmuseum.de
 www.ozeaneum.de



Workshop

Remote sensing to assess the
 distribution and abundance of
 seabirds and marine mammals:
 Possible applications for
 Unmanned Aerial Vehicles
 (UAVs)

deutsches meeresmuseum



The assessment of distribution and abundance of marine mammals and seabirds is essential for the monitoring of Marine Protected Areas (MPAs) and crucial in the course of Environmental Impact Assessments (EIAs), e.g. for the construction of wind farms. The most commonly used techniques such as standard line transect surveys with ships or planes are costly, heavily influenced by weather conditions and can provide statistically sound results only for larger areas. This necessitates thinking about new methods to enable researchers and consultancies to find appropriate measures for nature protection as well as reasonable ways to incorporate species protection into marine building activities.

A possible solution for these specific problems could be the increased use of remote sensing methods to reduce cost and logistic effort. While high-definition video surveys have already been used for the monitoring of larger whales and seabirds it is questionable, whether its resolution is adequate for smaller mammals and birds. In these cases, the higher resolution of still images might be preferable.

The following workshop will focus on the current applications of remote sensing for marine and terrestrial research and the possibilities to employ Unmanned Aerial Vehicles (UAVs) for such research aims.

One important issue of this workshop will be the general discussion of remote sensing technologies and their use in the research of marine mammals and avifauna. The second part of the workshop will be dedicated to UAV-technologies, their possible future use, availability to non-military users and current limitations. Advantages and disadvantages of UAVs shall be highlighted. The presentations

will demonstrate the wide range of current and future applications of UAV's for monitoring environmental issues on sea and land.

The workshop is organized by the German Oceanographic Museum in Stralsund in cooperation with the Rostock University. The workshop will be held in Stralsund, Germany in the new-built facilities of the OZEANEUM from November 20th noon to November 21st noon.

A detailed workshop programme will be provided to registered participants four weeks in advance. The workshop fee will be 20 €. In accompany with the workshop, a special dinner will be offered in the evening of the 20th November for an additional charge of 28 €.

Best regards

Michael Dähne and Görres Grenzdörffer

CONTACT

E-Mail: michael.daehne@meeresmuseum.de
Goerres.grenzdoerffer@uni-rostock.de
Phone: +49 3831 2650 391

Additional Information:

http://www.stralsund.de/hst01/content1.nsf/docname/Webseite_C1257401002FE71BC125712C00562DE2?OpenDocument

<http://www.ozeaneum.com/>

<http://www.meeresmuseum.de/english/content/index.htm>

http://www.auf.uni-rostock.de/Default_en.asp

Suggested Accomodations:

Altstadt Pension PeiB

Phone: +49 3831 303580
Tribseer Straße 15
18439 Stralsund

Prices: single: 50 €, double: 65 €,
ask for Guests of the 'Deutsches Meeresmuseum' rebate during the booking to get these prices

Pension Cobi

Phone: +49 3831 278288
Jacobitumstr. 15
18439 Stralsund

Prices: single: 35-42 €, double: 50-62 €,
you can ask for a 5 % rebate for guests of the 'Deutsches Meeresmuseum'

Steigenberger Hotel Baltic

Phone: +49 3831 2040
Frankendamm 22
18439 Stralsund

Prices: single: 72 €, double: 87 €, incl. breakfast,
please contact me first, if you want to book rooms there