

## 21<sup>st</sup> Meeting of the Advisory Committee

Zandvoort, Netherlands, 18 – 20 April 2016

### Record of the Meeting



#### 1. Attendance

This is listed in **Annex 1** to the Record.

#### 2. Opening remarks

The Chair of the Advisory Committee, Dr. Ferdia Marnell, opened the meeting and invited the representative of the host government to address the delegates.

Ms. Wilmar Remmelts, senior policy officer from the Dutch Ministry of Economic Affairs, welcomed the delegates on behalf of the host Government. She was pleased to greet bat experts from over 40 countries in Zandvoort. Ms. Remmelts informed the meeting participants that she would be the new Dutch focal point to EUROBATS and she stated that she would keep her speech short since Mr. Lejo van der Heiden M.Sc., Member of the Board of the Nature and Biodiversity Department, Directorate General Agro and Nature, Ministry of Economic Affairs, would also address the participants during the welcoming reception. Mr. Remmelts concluded by wishing the delegates a successful meeting.

The Chair also welcomed the delegates and wished them a fruitful and productive meeting.

Mr. Andreas Streit, the Executive Secretary of UNEP/EUROBATS, thanked the host government for having invited this meeting of the Advisory Committee to the Netherlands. He particularly thanked Ms. Remmelts for having organised a wonderful and very informative excursion. Mr. Streit was also pleased to see many bat workers from the Netherlands participating in the meeting, some of them for the first time, which he saw as an opportunity to boost the bat work in the Netherlands and to exchange views on important topics that were to be discussed during the meeting.

### **3. Adoption of the Agenda**

The Agenda, Doc.EUROBATS.AC21.1, was adopted unanimously. The Chair also asked for suggestions regarding Agenda Item 11 (Any other business), but there were no proposals made at that point.

### **4. Adoption of the Rules of Procedure**

The Chair drew attention to the Doc.EUROBATS.AC21.3, and asked if there were any objections to the Rules of Procedure. There being no objections, the Rules were adopted unanimously. There were also no objections to the observers attending the meeting and they were admitted.

### **5. Summary reports by the Parties, Non-Party Range States and NGOs**

Representatives of the Parties, Non-Party Range States, and Observers of the meeting gave a short report of their activities since AC20.

**Albania:** During the year 2015 Albania carried out some activities on raising awareness of pupils and students on bat protection. During the activities related to the 5<sup>th</sup> of June, the World Environmental Day, attention was also drawn to the rules and recommendations on bat protection.

Also at the University of Shkodra and at the University of Tirana two students started their research studies on bat monitoring and evaluation. Two micro-diploma theses include bat monitoring in Albania.

With the help of Professor Ferdinand Bego and Dr. Aurora Dibra the list of European bats species was translated in Albanian.

**Bulgaria:** Monitoring of underground sites was carried out as part of a project implemented by the National Museum of Natural History – Bulgarian Academy of Science (NMNH – BAS) with the financial support of the Enterprise for Management of Environment Protection Activities - MOEW. Six experts and twelve volunteers participated in the activity. Through winter and summer monitoring implemented in the period 2014-2015 we identified and recorded seasonal changes in the abundance of 10 species of cave dwelling bats at national level. During the winter months we surveyed 68 underground sites and counted a total of 144,262 individuals of 16 species of bats. In the summer, we visited 91 breeding sites and found a total of 126,129 individuals of 17 species. The sites for further monitoring as well as methodology for the monitoring of cave-dwelling bats were updated. All collected data related to the bats and the visited roosts were entered in a total of 185 electronic forms in the

information system of the National Biodiversity Monitoring System of the Executive Environment Agency (NBMS/EEA).

In 2015, due to the consultations of experts of NMNH – BAS, inappropriate cave grills were replaced – for example Venetsa cave. Four caves were proposed as Protected Areas by the NMNH – BAS team, but they are not yet designated.

Green Balkans' project "Building expert capacity for gathering data about bats in Bulgaria (an important contribution to the National Biodiversity Monitoring System (NBMS)" was launched in 2015. The project is aimed at solving a key problem related to research and conservation of bats in Bulgaria, namely – the lack of expert capacity in the country.

EUROBATS provided financial support to the Green Balkans' project "Let's all be Batmen!" Several brochures, posters, leaflets, eco-bags and T-shirts were printed and widely distributed.

In 2015, a campaign was carried out using resources raised by Green Balkans, NGOs, and the EUROBATS project. In September and October, over 20 events took place as part of the national campaign. This year, a record number of towns and villages joined the campaign – 17 in total. Almost 20 organizations, state institutions, and caving clubs participated in the campaign. Presentations, art workshops, caving equipment demonstrations, media interviews, competitions, quizzes, etc., aimed at popularization of bats, with 20 schools, hobby clubs and art clubs joining the campaign. More than 50 volunteers contributed over 60 man-days of voluntary work for the successful realization of the events, which made it possible for the campaign to cover almost the entire country.

With the support of volunteers and the permission of the authors, Green Balkans translated from Czech the publication "Český svaz ochránců přírody" – Medical care for bats. The publication "Standard and Medical Management for Captive Insectivorous Bats", Bat World Sanctuary, was translated from English. The translated versions are being edited and will soon be released on the Internet.

Green Balkans' initiative "Wild neighbors" was launched to change the regulations related to insulation of buildings and take urgent measures to rescue the animals and to provide new compensatory roosts (the elaboration and installation of pilot nest boxes/bat houses in Bulgaria that will be installed on insulated and other buildings, in order to compensate for the loss of roosts resulting from the insulation). With a view of developing a national methodology and recommendations, the Bulgarian Ministry of

Environment and Water (MOEW) translated from Slovak the materials kindly provided by Bratislavské regionálne ochrannárske združenie (BROZ). The materials were provided by the MOEW to the Ministry of Regional Development and Public Works. In parallel, Green Balkans is carrying out an information campaign on the internet to raise public awareness of this problem.

### **Czech Republic:**

- Bat monitoring and surveys
  - Continuing and starting monitoring and survey programs:  
Long-term monitoring (about 800 hibernacula monitored; 120 maternity colonies, ultrasound detecting of bat activity in 10 PLA localities, 9 swarming sites); Short-term monitoring (occurrence of bats in insulated and uninsulated blocks of flats across the whole country, occurrence of bats in gas heaters in Prague); Local surveys (occurrence of bats in old trees in parks and proposal of management).
  - Completed monitoring and survey programs:  
Survey of bats on Ramsar sites and wetland biotopes across the country; Monitoring of bats in Krkonoše mountains in cooperation with Poland [http://webserv.krnep.cz/data/netopyri\\_krkonos.pdf](http://webserv.krnep.cz/data/netopyri_krkonos.pdf); Monitoring and survey of geomycosis in bats caused by *Pseudogymnoascus destructans*. The results were published in 16 international journals amounting to total Impact Factor of 49 and three papers in nationally recognized reviewed journals. Eight manuscripts are in the final stages of preparation. Multiple articles include international cooperation between European or trans-Atlantic research institutions. During the course of the project, a non-destructive method for quantification of fungal lesions on bat wings was developed in cooperation with colleagues from US Universities, the Pennsylvania Game Commission, and the US Geological Survey, a method for detection of horizontally transferred genetic information in eukaryotes and a method to grade disease severity from non-lethal biopsy punches.
- Conservation
  - Bats, Buildings and Insulation projects:  
It was stated by the Ministry of Environment, that every company which plans to insulate buildings and asks for governmental financial support, must include in the request the results from a basic pre-insulation bat survey, and all official buildings which should be insulated, must document bat expert opinion. The second updated publication „Bats in building. Reconstruction and solving

problems“ (88 pages) will be distributed to offices, construction companies, project engineers (and will soon be published electronically at [www.ceson.org](http://www.ceson.org)). Evaluation of the efficacy of 450 bat boxes installed on insulated blocks of flats has been made (both types – transit to original roost and non-transit new boxes by wooden-concrete material or polystyrene), controls were done three times during the season. A new project „Learn the mysterious world of bats“ concerning bats in attics has begun.

- Seasonal movements

The project „Methodology for Data Collection of Important Migratory Corridors of Birds and Flying Mammals in the Czech Republic“ has started.

- Education, public events, promotion

Most of the promotion work is carried out by the NGO Czech Bat Conservation Trust (ČESON), locally also by the NGO Nyctalus with the cooperation of artists. The promotion work includes mostly special workshops for stakeholders of building insulation projects, consultations by phone (more than 1000 calls), new promotional material, improvement of webpages dedicated to bats, projects for schools (more than 150), art competition for Prague children, IBN on 46 sites, other public events with bats during the year (more than 100).

The scientific journal „Vespertilio“ is published every year and available online <http://www.ceson.org/publikace.php>.

The new book „Our Bats“, written by Miloš Anděra, with amazing photos, has been published.

**Finland:** The Red Lists of birds and mammals were updated during 2015. While the Red List of birds is unfortunately now consisting of more species than earlier, mammals are generally doing better than during the last assessment. For bats, no class changes occurred, and two species remain on the Red List. These two are *Nathusius' Pipistrelle*, which is considered vulnerable (VU), and *Natterer's bat*, which is endangered (EN).

A Finnish biodiversity facility (FinBIF) is being set up. This is a big project led by the Finnish Museum of Natural History. The project aims at building a system of storing and distributing species data, as well as providing tools for using these data in, for example, different assessment procedures. Major advantages can be seen in a situation where all species data are available via one portal. At the moment, for example, lists of sensitive species data are being prepared, such as nest sites of

certain bird species and locations of bat hibernacula. This kind of data will either not be shown at all or will be shown on a coarse geographical scale. A good amount of Finnish species data is already available at [www.laji.fi](http://www.laji.fi).

Concerning research, a doctoral thesis on food webs was defended last year. Eero Vesterinen studied the diet of Daubenton's bats using next generation sequencing with very interesting results. Besides the diet details, new pathogens were found in bat droppings and blood samples, namely *Bartonella* bacteria.

**France:** 2015 was the second year of transition after the end of the second national action plan for bats (2009-2013). This was the time for planning what the future action plans should look like, for taking stock of actions realized during the five-year period of the plan, and for drafting a third national action plan. An abridged version of the results "Agir pour les Chiroptères" is available on the website: <http://www.plan-actions-chiropteres.fr>. It states, for example, that 35 bat workers have been employed all over the country to fulfil the objectives of the plan with the major help of the 22 regions, that 447 roosts have been protected and 1085 new maternity roosts and 993 hibernacula have been identified during the five years, that 757 wind farms were installed up to January 2014, and that 911 events have been organized for European Bat Night. A technical guide on "Bats and transport infrastructures" has been written by the agency in charge of risks, environment, mobility and planning. Further, a protocol of environmental monitoring of wind farms has been issued. Thinking about the impact of insulation on bats has been initiated. Finally, one thesis on bats in forests, including forestry management, has been defended and six theses have started or are ongoing on population ecology of lesser horseshoe bats in forest, light pollution, impact and mitigation of transport infrastructures (2), impact of wind farms in agricultural landscape and benefits of agro-environmental measures for bats.

**Georgia:** From activities carried out in Georgia last year, it could be highlighted that a new wintering colony of about 2100 individuals of *Rhinolophus euryale* was found in western Georgia (cave Melouri, Tskaltubo, Imereti). Also, since 2009, after a few years interval, a wintering colony of about 800 individuals of *Miniopterus schreibersii* was recorded in western Georgia (cave Sakishore, Ambrolauri, Racha).

**Germany:** Among the activities in Germany one of the main topics remains the conflict of bat conservation with the expansion of renewable energies.

Suitable survey methods for the construction of wind turbines in forests have been published, which are recommended to be applied nationwide. At the moment there are different guidelines in the different Laender and this can lead to very different results in applying species conservation law<sup>1</sup>.

The research and development project “Identification of bat migration routes and corridors” was finished and the results are being prepared for publication. *Inter alia* the results suggest that bats migrate across Central Europe in a broad front (at least in the study area).

Some new federal research projects started, one dealing with the effects of small wind turbines on (birds and) bats, investigating the question to what extent bats are injured or killed at small wind turbines and if small wind turbines lead to avoidance/change of behaviour. The investigation area is located in northern Germany.

Another research and development project has started, “Before-after-Study at wind turbines in forests”, especially focusing on forest dwelling bats that use passive-acoustic hunting strategies, i.e. *Plecotus auritus* and *Myotis bechsteinii*. Subject of investigation is if, and if yes, to what extent, wind parks disturb bat colonies or have an (negative) effect on their population dynamics.

Furthermore a project to investigate bat migration across the north and the Baltic Sea was designed and is planned to begin this summer.

The project on Bechstein’s bat in the frame of the Federal Programme on Biological Diversity is running quite successfully, more than 20 new colonies have been found. On this basis a habitat model was generated in order to secure and promote further potential habitats. Guidelines for the implementation of conservation measures and promotion of the species in the different habitats were developed and can be applied nationwide. At the same time the forestry measures and their effects are under review. The second species that benefits from the possibility of getting funded/promoted by projects under the Federal Programme on Biological Diversity is the barbastelle. It is very likely that a project for this species will start in due course.

---

<sup>11</sup> Hurst, J., Balzer, S., Biedermann, M., Dietz, C., Dietz, M., Höhne, E., Karst, I., Petermann, R., Schorcht, W., Steck, C. & R. Brinkmann (2015): Erfassungsstandards für Fledermäuse bei Windkraftprojekten in Wäldern. – Natur und Landschaft (90) 4: 157-169.

**Ireland:** The Department of Arts, Heritage and the Gaeltacht (DAHG) has initiated a new pilot project to monitor woodland bats. This project will focus on collecting data for *Myotis nattereri* and *M. mystacinus* in particular, using a methodology tested with some success in the UK. This new survey will complement the on-going Irish Bat Monitoring Programme which already collects population trend data for the seven other bat species found in Ireland. A second new bat contract was also issued in 2016 by the DAHG; this will collect national distribution data over the next three years for the four most widespread species in Ireland (*P. pipistrellus*, *P. pygmaeus*, *N. leisleri* and *M. daubentonii*). This data will help inform the next Article 17 report required under the EU Habitats Directive. Both of these projects will be managed by Bat Conservation Ireland.

Ireland's *Bat Mitigation Guidelines*, first published in 2006, have just been updated and this new version will be available online very shortly: [www.npws.ie/publications](http://www.npws.ie/publications).

DAHG have also been collaborating with the Vincent Wildlife Trust to develop a pilot agri-environment scheme aimed at enhancing roosts and landscapes for lesser horseshoe bats. It is hoped to roll out this project during summer 2016 with a view to testing methods and approaches and gauging the extent of farmer interest in a more wide-scale scheme.

**Israel:** The Israel Nature and Parks Authority (INPA) together with the Mammal Centre of the Society for Protection of Nature in Israel (an NGO) continued expanding the National Monitoring Plan for Israel's Bat Species. During the third year of monitoring, almost 100 sites (roost and foraging sites) were surveyed. No major changes from last year's monitoring were observed.

Guidelines for assessments of proposed wind turbines in Israel have been established based on EUROBATS guidelines. INPA is leading compilation of a sensitivity map for planning purposes.

INPA has initiated research on bat distribution dynamics in several freshwater nature reserves on the shores of the Dead Sea, which is going through major changes.

A large scale oil spill (50 million litres of crude oil) occurred on December 2014, in a very important habitat for desert bats living in Acacia savannah at the Evrona Nature Reserve. More than 400 Acacia trees were impacted by direct contact with the oil. Due to the importance of Acacia trees as foraging habitat for species such as: *Rhinopoma hardwickii*, *R. microphyllum*, *Nycteris thebaica*, *Asellia tridens*, *Rhinolophus hipposideros*, *R. clivosus*, *Pipistrellus kuhlii*, *Hypsugo bodenheimeri*, *Eptesicus bottae*,



*Barbastella leucomelas*, *Otonycteris hemprichii*, *Plecotus christii* and *Tadarida teniotis* (Hackett, Korine & Holderied 2013. Plos One), we are currently monitoring the effects on the habitat and on bats. Clean-up operations are underway.

Major successful efforts have been made to combat light pollution in protected areas and with major infrastructure projects. Current knowledge of the effects on bats and other nocturnal wildlife is incorporated in addressing the issue.

International Bat Night was celebrated in 4 nature reserves throughout the country.

**Italy:** Much bat research is ongoing in Italy, covering several aspects of bat natural history and conservation biology. The Italian Bat Conference was held in Trento in late 2015, featuring many scientific contributions by researchers from all over the country. The Italian Ministry of the Environment is working in close co-operation with Sardinia's regional authorities and scientific societies (Italian Chiroptera Research Group and Mammal Society) to improve knowledge and better define the conservation status of the Maghrebian mouse-eared bat *Myotis punicus*, for which Sardinia represents the stronghold in Italy (the species is also present on Sicily, but likely with a small population). The objective is to increase conservation efforts for this species, if needed also by strengthening the Natura 2000 network in the region.

**Latvia:** Several bat monitoring programmes were financed by the Ministry of Environmental Protection and Regional Development in 2014-2016. Two of the programmes are new – the monitoring of pond bats in feeding habitats, and the countrywide monitoring of bats in private root cellars. Two other monitoring programmes – counts of bats in hibernacula, and acoustic detector monitoring of migrating bats – are longstanding ones and have run since 1992 and 1993 respectively.

Very successful international research collaboration continues with the bat research group of the Institute for Zoo and Wildlife Research (IZW) led by Dr. Christian Voigt in studies on bat migrating at the ornithological field station Pape, Institute of Biology, University of Latvia. A new funnel trap for capture of migrating bats at the Pape station was built in summer 2014 with financial support from IZW. During two autumn seasons about 5,000 bats of 14 species were banded and 6 recoveries of *Pipistrellus nathusii* were reported.

**Luxembourg:** In the past year Luxembourg focussed on optimizing monitoring and data bank survey of bats species, and assessing bats as target species for NATURA 2000 sites was continued. The species action plan for *Myotis bechsteinii* was

established and committed to Nature and Forest Administration/Ministry of Sustainable Development (Environment Department). Furthermore the implementation of action plans for *R. ferrumequinum* and *M. emarginatus* were continued within the framework of a LIFE programme and the National Nature Protection Plan (PNPN). A new threat on house dwelling species results from the fact that bats are a major concern in authorisation and impact regulation under nature protection law in the actual overall renewal of general development plans in Luxembourg. Forest dwelling bats are seriously threatened by the increased installing of forest tracks and paths and from the pressure of logging in old beech and oak forest in order to regenerate forest stands. Awareness actions for bats were continued by organizing a well-attended International Bat Night in Lasauvage, with children activities, bat conference and bat walk attended by over 250 persons.

**Macedonia:** Three most important facts regarding bat related activities in Macedonia for the last period are:

- BSG-Bat study group Macedonia, (the only NGO dealing with bats conservation issues) is still trying to convince responsible institutions in Macedonia (the Ministry of Environment and the company owning a particular windfarm) for the necessity of post construction or operational monitoring of the windfarm regarding its impact on bats. BSG is still waiting for the results from the complaint sent to the Bern Convention.
- Not much has been done in the last period regarding bats and their protection, and also nearly nothing for implementing international (European) legislation for bats.
- Additional technical and financial support from outside of Macedonia is needed in order to do something more for bats.

**Moldova:** The main important event concerning bats is publishing of the third edition of the Red Book of Moldova. It now includes 16 species of bats, compared to 6 in the previous edition. The increased concern about protection of bats is generally a success. In the process of the editing of the Red Book it was suggested by the EUROBATS focal points and the Ministry of Environment to the editing committee to include all bat species, this being in accordance with the EUROBATS agenda. However, probably due to some administrative issues, five species were ignored and not included in the list. Among them two noctule bats, two pipistrelle bats and the serotine bat.

Included in the 3 <sup>rd</sup> edition of Red Book of Moldova	Not included in the Red Book
<ol style="list-style-type: none"> <li>1. Rhinolophus ferrumequinum</li> <li>2. Rhinolophus hipposideros</li> <li>3. Barbastella barbastellus</li> <li>4. Myotis bechsteinii</li> <li>5. Myotis blythii</li> <li>6. Myotis myotis</li> <li>7. Myotis dasycneme</li> <li>8. Myotis daubentonii</li> <li>9. Myotis mystacinus</li> <li>10. Myotis nattereri</li> <li>11. Nyctalus lasiopterus</li> <li>12. Pipistrellus kuhlii</li> <li>13. Pipistrellus nathusii</li> <li>14. Plecotus auritus</li> <li>15. Plecotus austriacus</li> <li>16. Vespertilio murinus</li> </ol>	<ol style="list-style-type: none"> <li>1. Nyctalus noctula</li> <li>2. Nyctalus leisleri</li> <li>3. Pipistrellus pipistrellus</li> <li>4. Pipistrellus pygmaeus</li> <li>5. Eptesicus serotinus</li> </ol>

In the field of awareness raising worth mentioning is a broadcast radio campaign "Chiropteromania", that was launched in the end of 2015 and continues this year. It is quite popular, especially among younger Moldavans.

In the field of bat protection, the intention previously reported to EUROBATS to establish some protected areas for bats has made no significant progress. This is due to political instability and frequent change of the governments during the last year.

The newly gained first experience in rehabilitation of bats by some bat workers raised the need and intention to establish a Centre for Rehabilitation of Bats, which will most probably be hosted by the State University of Moldova that has already kindly offered a special room for this.

**Montenegro:** Focus has been made on data collecting and capacity building for bat monitoring, in the cross-border area of Montenegro/Albania, at the location of Skadar lake. Through the project "Conservation and Sustainable Use of Biodiversity at Lakes Prespa, Ohrid and Skadar", with the support of German Development Cooperation (GIZ), the first winter census, maternity colony survey, and mist netting training for Albanian and Montenegrin students have been carried out.

In order to increase the involvement of students and local NGOs, a workshop was organized at the University of Podgorica. Twenty students and representatives of Montenegrin NGOs participated in this activity, which included general presentations on bat ecology before a presentation and a discussion on monitoring and protection of bats with the example of the Skadar lake area.

Following two sessions in the field, all the data collected have been gathered, and the Action Plan has been produced. This Action Plan is composed of chapters on Skadar lake ecosystems, bats in general, and proposals of conservation actions in the study area. This Action Plan has been sent to responsible entities on both sides of the border, in order to be officially recognized by the national and local authorities. The next step will be implementation of conservation measures in the study area for the first time in Montenegro.

**The Netherlands:** The Central Veterinary Institute of the Wageningen University Research (Lelystad), the National Institute of Public Health (Bilthoven), the Naturalis Biodiversity Center (Leiden), and the Erasmus Medical Centre have programmes running on bat zoonoses. These institutions are represented in the Working Group Bat Zoonoses.

The long running passive surveillance of European Bat Lyssa-virus “EBLV”, started in 1986, was continued in 2015. Until the 1<sup>st</sup> of January, 2016, over 5,500 bats were tested for EBLV.

The joint programme of the Central Veterinary Institute of Wageningen University Research, the Schmalhausen Institute of Zoology (Kiev), and the Naturalis Biodiversity Center to investigate the occurrence of *Eptesicus serotinus serotinus* and *E. serotinus turcomanus* in Europe with DNA-sequencing methods was continued.

The other joint programme of the Central Veterinary Institute of Wageningen University Research, the Schmalhausen Institute of Zoology, and the Naturalis Biodiversity Center on the passive surveillance of European Bat Lyssa-Virus (EBLV) in bats in Ukraine was continued and has shown the occurrence of EBLV-1 in both the lineages *serotinus* and *turcomanus*.

The National Institute of Public Health and the Environment, the Central Veterinary Institute of the Wageningen University, and Naturalis Biodiversity Center have developed special guidelines on rabies vaccinations and titre testing procedures for bat workers who may be exposed to bats carrying EBLV. These guidelines have been adopted by the National Platform for Infectious Diseases Control and will be presented during the Meeting.

**Norway:** The Norwegian Environment Agency continues to support a number of bat-related activities carried out by the Norwegian Zoological Society (NZF). These include, among others, winter and summer monitoring projects, bat box studies, operation of a bat rescue centre and a bat help line, and bat walks and talks aimed at

the general public. The society makes use of internet, Facebook and YouTube in its information activities. The bat rescue centre's manager participated in the Berlin Bat Meeting in March 2015, and, at home, there was a social gathering and various presentations in connection with the annual winter counts in January.

In October 2015 the first case of rabies in a Norwegian bat was documented. A Daubenton's bat *Myotis daubentonii* found in a summer cottage in southcentral Norway was tested positive for EBLV 2. The bat was sent to the bat rescue centre, and it was here that a possible rabies infection was first suspected. The Environment Agency, the Norwegian Institute of Public Health, the Norwegian Veterinary Institute, and the Norwegian Food Safety Agency were quick in publishing informative and balanced news releases on their web sites, and only limited public interest followed.

A new national Red List for species was released in November 2015. Twelve species of bats were evaluated, and six were included in the Red List, ranging from Near Threatened to Critically Endangered. Two species are Critically Endangered, *Barbastella barbastellus* and *Myotis nattereri*. One barbastelle was still present in February 2016 in our single known hibernation site. The only change from the previous Red List from 2010 is that *Myotis mystacinus* (then Data Deficient) has been removed from the list.

**Poland:** The occurrence of *Hypsugo savii* has been confirmed in Poland (Sachanowicz 2015). This is the 26<sup>th</sup> bat species in Poland. The conservation work in the second biggest bat winter roost in Poland – Szachownica Cave, Natura 2000 site (up to 3000 bats from 10 species) – has started and is now up to 80 percent completed. More information on the project can be found on [www.lifeszachownica.pl](http://www.lifeszachownica.pl).

A handbook on the best practice for bat protection in forests was published (Rachwald, Fuszara 2014). The XXIV Polish Bat Conference took place on 13-15.11.2015 in Kazimierz Dolny (with about 100 participants and 36 presentations).

**Portugal:** In mainland Portugal the monitoring program of important underground roosts has continued. Several important underground roosts were fenced. Some important mines were closed using bat friendly methods. The time-table regarding the seasons when caves should not be visited due to the presence of important bat colonies was updated and an explanatory text about the criteria was prepared (<http://www.fpe-espeleo.org/index.php/component/content/article?id=30:abrigos-de>).

175 oral swabs of 10 species (*Pipistrellus pygmaeus*, *Miniopterus schreibersii*, *Myotis blythii*, *Myotis escalerae*, *Myotis myotis*, *Myotis bechsteinii*, *Rhinolophus mehelyi*,

*Rhinolophus euryale*, *Rhinolophus ferrumequinum* and *Rhinolophus hipposideros*) and pools of guano from 5 species (*Miniopterus schreibersii*, *Myotis myotis*, *Rhinolophus ferrumequinum*, *Rhinolophus mehelyi* and *Rhinolophus euryale*) were collected in different geographical points of the country; all the samples tested negative by RT-PCR for classical rabies and rabies-related bat lyssa-viruses. Many activities of public awareness have been organized all over the continental territory. Information of Natura 2000 database regarding Mainland Portugal, Azores and Madeira was updated (<http://cdr.eionet.europa.eu/pt/eu/n2000/>).

**San Marino:** In 2015 the National Natural History Museum completed the collection of information in the field, and edited the National Mammal Atlas, which will soon be available in the pdf format. It was recently presented to the public with a very good response, and copies of it will be sent to schools and libraries. A total of 47 species were mapped and also *Myotis emarginatus* was found with a breeding colony in Piagge tunnel with *Rhinolophus euryale*. Until now 17 bat species have been recorded in the 61 square km area of the country. A first Red List for the country is also provided.

Monitoring is on-going, mainly focusing on the few known reproductive groups. In terms of conservation, unfortunately, certain pressure is still being recorded regarding the use of the last “bat” tunnel as a touristic attraction, but the conservation department is strictly protecting the site.

The role of the National Museum in the education and familiarisation was demonstrated to be equally important in children and adults. A campaign of installation of bat boxes in different types of environment all over the country and close to schools has had good success.

**Sweden:** Due to recent permanent lighting of certain underground passages for tourist purposes, in a large, former military fortress, a very important hibernation site for barbastelles might be threatened. There is on-going work to mitigate that threat.

New guidelines for environmental monitoring of bats by linear transects have recently been completed.

Sweden has also revised the common names of the Swedish bats in order to make them more accurate and to avoid author’s names in the common names.

From the recent revision of the Red List, eight out of 19 Swedish species are now listed.

The Swedish NGO has continued to arrange workshops and bat walks, not the least during International Bat Night.

The national wind power consortium Vindval has recently agreed to pay for a number of research projects on bats and wind power, and a wind power conference is due in the beginning of May 2016.

The Swedish bat rabies surveillance is still ongoing, both for passive and active surveillance. However, no new cases of anti-bodies to lyssa-virus have been found since the first one ever was found in the south of Sweden in 2013. No cases at all have been found of actual bat rabies. The media interest has been low due to the successful public relations work done in 2013 by all agencies involved at the time.

**Switzerland:** Protection efforts remain on the level of the previous years thanks to the help of more than 600 volunteers and the support of the Swiss government and all the 26 cantons. In spite of it, several bat species remain under great pressure in densely populated Switzerland, especially the attic-using ones. Besides the long-term monitoring and protection projects for three attic using species (*Myotis myotis*, *Rhinolophus ferrumequinum* and *R. hipposideros*), a new project referring to the three long-eared bat species of Switzerland (*Plecotus auritus*, *P. austriacus* & *P. macrobullaris*) has been launched. Therefore, more than 100 volunteers have been recruited and educated, taking care of important roosts now and collecting data according to a standardised procedure. The project shall be expanded in the next years to the whole of Switzerland.

Further important developments and challenges in 2015 were:

- Implementation of bat protection concerns into the Action Plan of Swiss Biodiversity Strategy;
- Evaluation project of GIS-based low-cost methods to identify potential flight corridors from settlement to the hunting habitat;
- Consolidation of Swiss Bat Bioacoustic Group (SBBG) to set validation standards on bio-acoustical investigations;
- Publication of Wind energy National Guidelines taking bats into account expected in 2016;
- Inclusion of bats (distribution of species, biology, conservation) in a new Swiss mammalian atlas project (the atlas is expected to be published in 2020);
- Free-of-charge access to scientific knowledge at the World Bat Library of Geneva for EUROBATS experts;
- International Bat Night: 35 events with more than 3000 participants.

**Ukraine:** Activities on bat research (faunistic and ecological issues), conservation, and public education have all continued.

**United Kingdom:**

- The National Bat Monitoring Programme 2014 results show that currently all species surveyed appear to be stable or increasing, based on data from at least one survey. In 2014, five species showed statistically significant increases over the period of the monitoring programme in at least one survey across Great Britain. Significant positive trends were reported for the following species: greater horseshoe bat (Roost Count), lesser horseshoe bat (Hibernation Survey & Roost Count), Natterer's bat (Hibernation Survey), common pipistrelle (Field Survey), soprano pipistrelle (Field Survey). These results indicate that lesser horseshoe bat populations are increasing, as clear increases are shown in both surveys, and that common pipistrelle and soprano pipistrelle populations are increasing, as Field Survey data are considered to be more reliable than Roost Count data for these species. For further details see [http://www.bats.org.uk/pages/species\\_population\\_trends.html](http://www.bats.org.uk/pages/species_population_trends.html).
- Research projects:
  - UK Wind turbines and bats research project – The final report will be published in 2016 once the guidance to go with the report has been completed.
  - Woodland Bat Monitoring – The project report “Developing an effective method for the systematic surveillance of bats in woodland habitats in the UK” is available on the Defra website. Search for WC1015 at <http://sciencesearch.defra.gov.uk>.
  - Roads and Infrastructure and bats – The project report “Development of a cost-effective method for monitoring the effectiveness of mitigation for bats crossing linear transport infrastructure” is available on the Defra website. Search for WC1060 at <http://sciencesearch.defra.gov.uk>.
  - Review of British Mammals – This project will review the distribution and status of British mammal populations (last undertaken by Harris et al, in 1995). The project will finish in September 2016 and will include an IUCN Red List assessment.
  - Systematic survey of bats across southern Scotland using automatic detectors, focussing on *Nyctalus* spp and *Pipistrellus nathusii* – The fieldwork will commence in May 2016.



- Legislation:

At the last AC meeting, BCT reported on the European Commission's review of the Birds and Habitats Directives and whether they are "fit for purpose". Member state consultation and public consultations were undertaken in the United Kingdom and concluded that there was no need to renegotiate the Directives and that the focus should be on implementing them.

### **Short reports from the Non-Party Range States**

**Armenia:** There are 30 species of bats distributed in Armenia, 10 of which are listed in the Red Book of Armenia. There are ongoing studies of bats in Armenia by several bat specialists. A guide book with an identification key of Armenian bats has been prepared in the Armenian language. *Myotis alcathoe* has been found for the first time in Armenia. *Miniopterus palidus* and *M. blythi* were found in a mixed colony in an old mine located in the south of Armenia. A pilot project to survey the distribution of bats in Armenia by using bat boxes has started. Several papers have been prepared and published, one of which concerns *M. hajastanicus*. In October 2015 a small workshop for students from different universities of Armenia was organized. During the workshop they learned modern methods of bat research. A number of public programmes was prepared and shown in the media concerning bat biology, ecology and their role in human life.

**Austria:** Being still a strictly federal country, Austria is not likely to become a member of the EUROBATS Agreement in the near future. Nevertheless, there are some achievements to be reported. After some 20 years of futile efforts, the last Austrian maternity roost of *Rhinolophus ferrumequinum* in the castle of Eggenberg/Graz was protected as a Natura 2000 site by the Styrian Federal Government in 2015. The Styrian Nature Protection authorities have submitted a project proposal to conserve and improve the roosting conditions (mainly the exits) in this historic building, and to study the areas where the colony members are foraging.

Furthermore, the usage of one of the most famous hibernacula of *Rh. hipposideros*, Hermann's cave in Lower Austria, is being studied. Using light barriers, the numbers of swarming and hibernating bats were investigated in 2015/2016. Next year camera traps will reveal the specific identity of the visiting bats. At the same time, measuring cave temperatures is repeated at those measuring points which were in use already in the late 1980s. The results will help testing the hypothesis that a change in cave temperatures as a consequence of global warming has caused the significant recent decline of hibernating *Rh. hipposideros*.

**Azerbaijan:** There is no obvious progress yet to be reported related to the ratification of the CMS Convention and the EUROBATS agreement. It is still under review by the Azerbaijan Government. A number of request letters have been submitted to the Ministry of Environment and Natural Resources (MENR) of the Azerbaijan Republic, as well as to some other relevant organizations to accelerate the review process with a positive outcome.

The planned and systematic research on bats is being conducted by the Institute of Zoology, and some new studies have been started at Baku State University and Medical University. The recent two-year-research on bats was completed in 2015, and it was a complex investigation of all mammals, including bats, along the Caspian coasts within Azerbaijan. The protection recommendations were submitted to MENR.

A bat investigation was part of the SCPX Project ESIA baseline surveys in mid-2016. A Bat Habitat Field Survey was conducted at selected watercourse crossings in Azerbaijan. The key objective of this habitat assessment survey was to identify the watercourse crossings where further surveys of chiroptera are required in order to evaluate construction-related impacts and develop adequate mitigation measures. The short term survey was conducted in late June 2015 by Dzelkva Consultancy Company of Georgia.

In terms of events and awareness raising, the NGO Ecosfera, with involvement of national bat experts, organised International Bat Night in September 2015. The relevant information is available on the website of the mentioned NGO.

The Russian and Azerbaijani versions of a Guide Catalog of Azerbaijan Bats (drafted by Ms. Irina Rakhmatulina) have been finalized and printing is planned for mid-2016.

**Belarus:** During 2015 the fourth edition of the Red Data Book was published and there were eight species of bats included (*B.barbastella*, *M. mystacinus*, *M. nattereri*, *M. brandtii*, *M. dasycneme*, *Pl. austriacus*, *N.leisleri* and *E nilssonii*).

At the moment the Ministry of Natural Resources and Environmental Protection of Belarus is considering the case for joining EUROBATS.

In summer 2015 *N. lasiopterus* was registered in Belarus for the first time since 1930. In addition, the following publicity activities were carried out: International Bat Night events were held in different cities of Belarus; Popular bat-lectures; Workshop “Bats of Belarus” for the researchers of “Narachanski” National Park (<http://narochpark.by/news/591.html>).

**Bosnia and Herzegovina:** In the previous period winter monitoring of bats has been carried on. The area has been extended to 33 locations, mostly in caves of northern and central Bosnia.

International Bat Night was celebrated in the small town of Banovići, where a new cave research group had been activated. The publishing of a supplement to the cave-journal continued, containing only papers dealing with bat research. In 2015 two issues were printed – for 2014 and 2015. All issues are available on the website of the Centre for Karst and Speleology: [www.centarzakrs.ba](http://www.centarzakrs.ba).

The number of bat species in Bosnia and Herzegovina is 29. Research is still continuing in constant cooperation with colleagues from Slovenia and Serbia.

There is no news on joining the Agreement, although there have been some indications that this could have happened very fast. The UNEP office in Sarajevo is also involved in the promotion of the Agreement.

**Greece:** During the last year monitoring and assessment of conservation status of bats in the whole territory of Greece was undertaken in the framework of several independent programs (under “The Operational Programme “Environment & Sustainable Development” - National Strategic Reference Framework 2007-2013”). These studies lead to a better understanding of the distribution and population size of many Greek species, and the identification of important roosting and feeding habitats. EUROBATS publication “Guidelines for consideration of bats in wind farm projects.” is currently being translated upon request of the relevant authority of the Ministry of Environment. The Greek version may be used as a reference for future pre- and post-construction impact surveys in wind farms.

A LIFE+ Biodiversity project on the effects of windfarms on biodiversity has been running since 2014 by the “Centre of Renewable Energy Sources and Energy Saving” and NCC (Nature Conservation Consultants Ltd), and it includes birds and bats. The purpose of the project is to demonstrate monitoring techniques to local investors in order to reduce impacts on birds and bats. The study area is a demonstration wind farm near Athens.

In two wind farms in Greece post-construction impact surveys were undertaken by Greek and Italian experts following the EUROBATS guidelines.

Finally, in early 2016 the questionnaire from the IWG on purpose-built bat roosts was filled out; unfortunately, there was not much information to provide.

**Jordan:** Following the studies on corona-virus, further blood samples were collected from a number of bat species and were sent for testing. At present, a monitoring programme was established for operating wind farms in southern Jordan. This work is done in cooperation with the Ministry of the Environment. A workshop on the regional status of the Jordanian mammals was carried out. A national Red Data listing for all mammals including bats was undertaken.

Together with Professor Zihad Bousalma, two manuscripts were drafted; one on the bats of Al Qala Biosphere Reserves, and the second on the ticks associated with *Myotis pucinus* in northeastern Algeria, which was accepted for publication in the Journal of Vector Ecology.

**Lebanon:** Results on the corona-virus surveillance study on the bats of Lebanon was published in Emerging Infectious Diseases journal. Still further samples were collected and sent to St. Jude Cancer Centre for testing. Along with European colleagues a manuscript on Circum-Mediterranean Phylogeography of Bat was published in Molecular Phylogenetics and Evolution.

The situation for bats in Lebanon is not stable due to the unstable situation of the country. A major cave where the massacre of bats occurred in 2012 in the North of Lebanon was destroyed completely due to a development project. However, winter monitoring is still ongoing in accessible caves.

A new project involving students and the young generation of bat researchers is to be started in September 2016 on the distribution and population size of *Rousettus aegyptiacus* throughout the country.

As usual International Bat Night is each year better than the previous year. This year it was under the patronage of the Ministry of Environment.

**Morocco:** The bat fauna of Morocco consists of about 30 species. At least 18 species (60%) are within the range of European bats. All bats species are protected by the law protecting wild species of flora and fauna in Morocco. The regulations implementing this law were enforced in July 2015.

Research on the ecology and distribution of bats in Morocco Rif Atlas Mountains and Sahara has been conducted. An initial list of underground sites has been identified. Five Master thesis on bats have been conducted.

More efforts in awareness raising regarding the importance of bat conservation are necessary, both at the level of the general public and at the level of the decision makers. Our objective is to organize a workshop for enhancing stakeholders'

awareness as well as capacity building for the conservation of bats in Morocco. In case support could be received from EUROBATs, the workshop could be organized in the Maghreb region. It would involve national actors who could directly be engaged in the conservation of bats.

The following is also reported:

- The Ministry of Water and Forest:
  - Nominated the CMS focal Point;
  - Primary responsibility for implementing the law protecting wild species of flora and fauna;
  - Accounting for bats in forest management projects;
  - Accounting for the conservation of bats in the Protected Areas Management Plans.
- The Ministry of Environment:
  - Integrating chiroptera in the National Strategy for the Conservation of Biodiversity;
  - Considering monitoring and conservation of bats in the Environmental Impact Assessment;
  - Monitoring mortality of bats in the wind farms;
  - Considering conservation of bats in the urban planning.
- The Ministry of Tourism:
  - Taking into account the protection of bats in the development projects of the touristic sights (protection of bats in tourism and caving activities).
- National School of Architecture; National Institute of Urban Planning and Development:
  - Considering the conservation of bats in the urban development plan.
- Centre for Scientific and Technical Research:
  - Funding and supporting chiroptera oriented research programme
- NGOs:
  - Contributing to the protection of bats through their activities;
  - Commitment to awareness raising, to education, advocacy and campaigning toward the protection of bats;
  - Production of outreach material (leaflets, posters, stickers, and a pocket field guide) in Arabic, Amazigh and French to improve knowledge and promote conservation of chiroptera.

**Saudi Arabia:** Research on bats has continued extensively, especially after the emergence of MERS CoV and the possible association of a bat species to be the virus reservoir. This important issue urged for a comprehensive survey on bats species to update their existing list, status, and distribution. Activities included identification of new roosting sites, caves and underground sites throughout the country. In addition, various samples from captured bats have been collected for infectious diseases screening among bat species. This work will continue through the next few years with support from Ministry of Health, Ministry of Agriculture, Saudi CDC, and Saudi Wildlife Authority. On a conservation and public awareness note, a campaign involving volunteers who care about bat conservation and protection, has been formed and is already resulting in fruitful plans for implementing ecological man-made roosting houses/rooms built from clay and rocks. Initiatives of these projects on alternative roosting sites were financially supported by Saudi Wildlife Authority.

**Serbia:** The Ministry of Agriculture and Environmental Protection is still responsible for environmental issues in Serbia, but this may change after the elections taking place next weekend. Since the last AC meeting, all the procedures within the Ministry in order to ratify the EUROBATS Agreement have been finalised. However, also due to the elections, ratification in the Parliament will be delayed for a bit longer.

Full funding of the bat roost monitoring for the next three years has been provided by the Ministry. There is still a total of 30 bat species in the national fauna.

International Bat Night, engaging more than 3,000 participants and satisfactory media coverage, is now a well-established event.

At the request of several AC members, copies of Serbian guidelines for bats and EIA were made available at the AC meeting.

**Tunisia:** Several surveys were conducted during March-April and July-September 2015 in north Tunisia for the mapping of caves and mines hosting bats and for monitoring the occupation period especially with a speleologist. A prolonged discussion with decision makers in the Forestry Department/Ministry of Agriculture led to limiting the access to the important caves during hibernation period.

Two Tunisian students participated in a capacity building workshop held in Annaba and funded by EUROBATS in March 2015. They received a batbox D240X that contributed greatly to the quality of the survey.

A survey on corona-virus was conducted in 2015/2016 involving five species.

Bat Night was celebrated at five sites between the 25<sup>th</sup> of August and the 7<sup>th</sup> of September during the last two years with 150 attendees for each site. Lectures and workshops for children were carried out as well as presentations for adults, and a tour with a bat detector. Public media and social network provided good coverage in the local newspapers.

### **Short reports from the Observers**

**Tragus (Croatia):** The Association for Bat Conservation Tragus has continued with the research of bat fauna on selected localities in the National Park of Brijuni. The most important result was capturing of ten *Nyctalus lasiopterus* males, as this is only the second finding of live specimens of this species in Croatia after 89 years. As part of this project, International Bat Night was organized. The summary of the research so far conducted was published as a conference paper.

In the scope of the Nature Park Papuk monitoring program, Tragus continued with the monitoring of the hibernating bat colony in Suhodolka jama (2015) and Uviraljka jama (2016). As part of this project, altogether 26 samples were taken and sent for the analysis on potential *Pseudogymnoascus destructans* presence.

As part of the EU NATURA 2000 Integration Project (NIP), an inventory of bats in the continental region of Croatia is still ongoing (70 percent completed). Through the project activities almost 1,000 new bat records have been made.

As normal, Tragus took part in the International Bat Night events in the Nature Park Medvednica and Zagreb ZOO. Tragus' members were leading tours with bat-detectors, a guided tour in Veternica cave, and they provided educational lectures.

As part of the EIA, two expert studies on the possible impact of projects on bat colonies were conducted by Mirna Mazija as a freelance consultant: An impact assessment of mine blasting tests in the proposed quarry on bat fauna in Gradusa Cave, and an expert study on possible impacts on bat fauna in tunnels near Mihanići of the project „Revitalization of an old narrow-gauge railway - Ćiro from Zvekovice to Glavska in Konavli area“ (IPA Croatia – Bosnia and Hercegovina 2007-2013).

During 2014 and 2015 the project “Monitoring of the forest bat species in selected sites in the Nature Park Medvednica” was conducted by Mirna Mazija. Pond management and bat conservation measures were proposed.

The public institution for protected areas in Krapinsko-zagorska County financed a bat research project which should result in the first inventory of bats in the area. Mirna

Mazija as the project leader presented the results at the International Bat Night event in the city of Krapina.

In the year 2016, this expert started new projects in Cave park Grabovača and bat research in four protected areas (Natura 2000) in Brodsko-posavska County.

**MTU Suurkõrv (Estonia):** MTU Suurkõrv contributed to the national monitoring of bat populations in Estonia, it carried out different surveys, and organised bat events for the public. People contacted it more and more frequently to get advice on bats in buildings, and the number of its followers on Facebook was growing.

The Estonian Fund for Nature took the initiative to prepare an application for a Life Project for conservation and management of selected important hibernation sites. Many different institutions and experts, as well as MTÜ Suurkõrv, were invited to participate and to contribute, including also Latvian colleagues. MTÜ Suurkõrv hoped that the initiative would be successful.

**SFEPM (France):** SFEPM has collated examples of improvements to roosts for bat welfare and better acceptance of bat presence. This synthesis is available upon request.

SFEPM has also continued to collaborate with the ANSES (national lab studying bat rabies) for passive and active surveillance of bats.

Collaboration with the National History Museum in Paris has started to join the European Bat Indicator Project.

The French working group on wind turbines has managed to obtain some mortality monitoring reports that bring the total of known fatalities in France to 1594. In response to the ministry's decision of recognizing only the guidelines produced by the wind energy promoters as valid guidelines for bat mortality monitoring, the working group drafted a new guidance according to the EUROBATS Guidelines version 2014. This document (in three parts) was then sent to the relevant authorities at national and regional levels and is now online on the SFEPM website:

[http://www.sfepm.org/pdf/20160213\\_planification\\_V2.1.pdf](http://www.sfepm.org/pdf/20160213_planification_V2.1.pdf)

[http://www.sfepm.org/pdf/20160213\\_diagnostic\\_V2.1.pdf](http://www.sfepm.org/pdf/20160213_diagnostic_V2.1.pdf)

[http://www.sfepm.org/pdf/20160213\\_suivis\\_V2.1.pdf](http://www.sfepm.org/pdf/20160213_suivis_V2.1.pdf)

For International Bat Night 271 events were organised in France and in the French overseas territories, with more than 6,500 people attending them.



Three regional bat workers' meetings took place in the western part of France (170 participants), the eastern part (121) and the southern part (75).

Regarding the action on refuges for bats, altogether 584 agreements have been signed with bat roost owners who agreed to conserve the roosts.

Concerning the overseas territories, the study of bats continued in Martinique and a new project has started in Mayotte, where workshops on acoustic methods and mist-netting have also been organised for members of administrations and NGOs.

**NABU (Germany):** The main event of European Bat Night in August 2015 was held in Mayen, where a large former underground quarry now hosts around 50,000 bats of different species during winter. More than 350 people attended this event. About 100 smaller local bat nights were held in other regions, so that many people could be familiarised with bat conservation all over Germany. This year's main event will be held in Hesse. Until now a large number of local bat nights have already been organised and are published on the NABU webpage.

In March 2015 NABU held its national bat conference with about 400 participants in Thuringia. There is a growing interest of young bat workers in NABU's events, which allows it to dissipate further the needs and aims of bat conservation and management as well as new information.

Recently a newsletter has been developed to inform the bat community about actual events and conservation issues and it will be published about 3-4 times a year.

Because of the growing necessity to advise people that have found young or injured bats, a central emergency call centre has been established. It is run by a group of people, who try to solve the problems by giving advice or else by referring to local specialists. The hotline is also at work during week-ends and in summer until late in the evening. In a first pilot phase, more than 1,000 calls have been answered over a few months.

The action „Welcome bats“ is still being continued in almost all of the 16 Laender and is now about 10 years old. Within this action, house owners with bat colonies or people taking care for bats are honoured with a badge and a press release.

These days a project of the NABU, funded by the Federal Agency for Nature Conservation by means of the federal Ministry, called „Batcities“, is about to start. It aims at campaigning to promote bat protection in urban areas, as well as at acquiring and training new bat workers, especially in cities.

NABU is a funding member and trustee of BatLife Europe and continues to regularly follow the meetings.

**Leibniz-Institute for Zoo and Wildlife Research – IZW (Germany):**

In December 2015 IZW published the e-book “Bats in the Anthropocene: Conservation of bats in a changing world”, co-edited by Christian C. Voigt and Tigga Kingston. Due to financial contributions made by the Leibniz-Institute for Zoo and Wildlife Research, EUROBATS, and the Southeast Asian Bat Conservation Research Unit (SEABRCRU), it was possible to publish this book as a freely-accessible document which can be downloaded at <http://link.springer.com/book/10.1007%2F978-3-319-25220-9>. During the four month of its online presence, the book has been downloaded almost 80.000 times, suggesting that this book will make a significant contribution to bat conservation. The editors are thankful for the financial contribution made by EUROBATS and for the contributions of the chapter authors. The IZW is continuing its efforts in conducting applied research related to bats and light pollution, wind turbines, land use changes and diseases. Further, the IZW is involved in capacity building by teaching and advising students in the area of bat conservation.

**Bundesverband für Fledermauskunde Deutschland e.V. (Germany):**

“Bundesverband für Fledermauskunde Deutschland (BVF) e.V.” (Federal association for bat expertise in Germany), the German umbrella organization for bat workers and bat conservation, was founded in February 2015. After the first year of its existence the BVF already represents over 4000 bat workers in Germany. They are members of almost 50 groups ranging from volunteers and bat associations, consultants and official bat workers up to university chairs.

The main aim of the BVF is a comprehensive and neutral representation of the German bat workers’ interests. The BVF also aims to build a nationwide network for bat workers, establish accepted standards for their work, and concentrate competence as well as experience to fulfil European directives in the protection of bats and their habitats.

After the establishing phase, the BVF went to the productive status, and it already supports several European bat migration projects. In spring 2016 a workgroup dealing with methodology standards and certification processes was initiated and already produced a position paper to address administration and authorities.

Other working groups, for example on a national monitoring concept, are planned to start working before winter 2016.

Furthermore, the BVF is looking forward to cooperate with other organizations on the international level to promote collective goals in bat monitoring, research, and bat conservation.

**BatLife Europe:** This year BatLife Europe had three main activities. The first one was preparing an update of the European Bat indicators. Secondly, BatLife Europe organised the bat of the year in 2015, and launched *Nyctalus noctula*, the noctule, as bat of the year 2016. The partners were given a framework for activities, such as postcards to hand out, a factsheet, and it was planned to collect data on day-active noctules. Thirdly, in collaboration with the Dutch Mammal Society, consultancy Regelink Ecologie & Landschap, the city of Utrecht and 9 other cities, and the Netherlands Biodiversity Information Facility, a bat box database was established for people to store, share and discuss their data. The goal was to facilitate bat box work and collect data to make analyses on their effectiveness. The website is free, open data and open source.

BatLife Europe has also commented on a new version of the EU bat action plan. It warned the EU partners about the REFIT process, and it sent a letter of support as well as a letter of protest to the governments of the two partner NGOs.

BatLife Europe attended the International Land Conference in Berlin in October 2015 to promote bats in landscape conservation as an invited speaker, it attended the Berlin Bat Meeting, and presented the past work and future plans for the European Bat Indicator at the French National Bat Conference in Bourges last month.

BatLife Europe is an umbrella organisation for the 33 NGOs that are its partners, and are always ready to act on behalf of bat conservationists, who should contact BatLife Europe if they need its support.

**BCT (United Kingdom):** BCT and the University of Stirling jointly hosted the Wind Turbines and Wildlife Symposium in October 2015. The conference was well attended, including representatives of operators, developers, consultants, NGOs and academics. The talks have been made available to delegates and further outputs are now being discussed.

BCT published the third edition of the Bat Survey Guidelines earlier this year. This contains some new chapters, including one on advanced survey techniques. BCT is reviewing its professional training standards in line with the new survey guidelines, and is also reviewing its Bat Care Guidelines. It is working with a technical group of lighting engineers to update its lighting guidance – this should be available later this year.

BCT has recently started two new projects: Swanton Novers, which focuses on finding out more about the management of woodlands for bats in a nature reserve in Norfolk, England; and Back from the Brink, a project run in collaboration with other species NGOs, taking action to save 20 species from extinction and improve the fortunes of approximately 120 other species. The grey long-eared bat is one of those that will benefit from this project.

The UK national report has already mentioned the National Bat Monitoring Programme, which in 2016 turns 20 years old.

**Dutch Mammal Society:** reports on the following activities:

- Projects under the header of “Farmers looking for bats” focused on learning from farmers and informing farmers on how bats can help reduce the use of insecticides. This also presented a communication strategy towards the general public. In relation to *Myotis emarginatus* hunting and roosting in cow sheds, farmers reported that having bats meant no spraying against flies was necessary. The Dutch Mammal Society signalled that the loss of farmers/farms, and the size and modern industrialization of farming presented a threat to *M. emarginatus*.
- In a number of larger cities the Dutch Mammal Society has had the possibility to test its ideas on how to actively survey for mass-hibernacula of *Pipistrellus pipistrellus*. The method on how to assess whether a building is a potential hibernaculum, and how to actively find the hibernacula, fitted to the Dutch structure of cities and buildings, was presented, for example, at the British National Bat Conference, and is being prepared for publication in 2016.
- Most of the formal responsibility for nature conservation has been transferred from the national government to the provincial governments. The Dutch Mammal Society analysed EUROBATS resolutions and their relevance for different provinces. Discussing this analysis with regional governments, and trying to get the implications of the resolutions into their professional awareness is ongoing.
- Many of the lime-stone quarries are Natura2000 sites. Many are also used for tourism. New approaches have been tested, combining information on touristic use and intensity, and grilling/and geo-stabilizing of sites, as well as their effect on the internal climate (draught and [stability of] temperature and humidity), and the effects thereof on bats and historic values. With this information new guidelines for the use of the sites are being developed together with the stake holders / users.

- An approach for working with a Species Monitoring Plan and a more generic license for development and planning is tested in a number of municipalities. The first “generic licence” (GL) is issued.
- A method and strategy for monitoring urban populations, a prerequisite for assessment of the conservation status, is being developed and tested with a number of municipalities.
- Pro-active building for/with bats is being tried in different development projects. Monitoring will have to inform on what has been done wrongly and what has been done right.
- Bat research protocol for impact assessment, in developments where bats are or might be an issue under nature conservation legislation, was developed about eight years ago. The Dutch Mammal Society wishes for, and pressures towards, a new evaluation of this bat research protocol. The Dutch Mammal Society would like to do this together with, and funded by, the provincial governments to assure their commitment to it.

**Bat Group Netherlands /Natural History Museum Rotterdam:** The Bat Group Netherlands is part of the Dutch Mammal Society, and it has about 750 members. The number of members is still growing. The Group has a yearly meeting with 150 members, who give each other presentations of the ongoing Dutch research to exchange knowledge and inspire others. The Group also publishes three to four digital newsletters a year, in order to distribute experience and knowledge. Regarding what was done in 2015 and what will be done in 2016, the Group highlights three points:

- Dutch International Bat Night. Every year this was a great way to reach about 2,000 people (many of them children) during the bat weekend in August. In 75 places the Group organised excursions and presentations; many foresters and rangers asked to join this event, which increased the number of locations and excursions organised. The Group designed and printed new information leaflets and distributed them throughout the country, together with Batlife Europe postcards of *P.nathusii* as the bat of the year 2015. The Group received many enthusiastic reactions, also from several politicians who joined the excursions at their places of residence. This year there will be extra attention to the noctule bat, bat of the year 2016, in collaboration with Batlife Europe.
- Bat caring. The Bat Group has a website ([www.vleermuis.net](http://www.vleermuis.net)) where people can report, if they found a bat, dead, wounded, or alive. Besides it being a good way to

find out where nursing colonies are located, it also gives the Bat Group more insight into where bats live in the cities. This information is then added to the database (<http://waarneming.nl/familie/view/233>). The Group's volunteers take care of the reported cases. For longer care taking, bats are and should be taken to the few rescue centres for wild animals that exist in the Netherlands. Not all of the bat care taking place at home is according to the law or with the correct permits. The Group's goal for the next year is to organize the first "bat carers' day" for the Netherlands, to exchange experiences and best practices on how to take care of bats, and to educate people about health. Dead bats are collected for research on viruses. The network, how to organize this, and the forms with all the data the Group wants to collect, will be created to raise bat caring in the Netherlands to a more professional level. Additionally, the Group would like to discuss with the Ministry if the rules will have to be changed or if new permits (under certain conditions) have to be given to bat caretakers.

- In 2016 thousands of houses in the Netherlands will be insulated. For this large insulation project the Ministry of Economic Affairs has issued an exemption from the Dutch Flora and Fauna law to big companies. Because there will be no active monitoring by any governmental institution, the Group will try to do this with the help of volunteers during the next year. The Group will visit the places to check if all conditions of the exemption have been followed and if the right bat boxes have been placed as compensation measures. The findings will be reported to the Dutch Mammal Society, so that it can discuss this further with the Ministry.

**PTOP "Salamandra" (Poland):** In Poland NGOs were as usual active in the conservation of bats. Their activity focused mainly on the protection of different bat hibernacula and on public education. The topic that deserves to be highlighted is the protection of Bialowieza forest complex, which is also an important habitat for many species of bats. Bat and nature conservation organizations, as well as the majority of scientific community are very concerned about the decision to approve a threefold increase in the logging of old woods in this forest. Scientists and conservationists are afraid that the logging can cause damage to this habitat, which is legally protected not only as Natura 2000 site, but also as a UNESCO World Natural Heritage Site.

**SECEMU /Spanish Bat Conservation Association:** SECEMU/ Spanish Bat Conservation Association would like to thank EUROBATS for making its participation at AC21 possible. Unfortunately, there have been no changes in the Spanish Administration's position in relation to the EUROBATS Agreement. Nevertheless, the

Spanish Ministry of Agriculture, Food and Environment was showing sensitivity (and/or maybe capacity) regarding bat conservation issues, and it has taken actions, in close collaboration with the NGO, to improve the situation of selected important roosts across the country, all under a variety of different threats.

Within its possibilities, the NGO has started organizing an annual call for specific bat conservation projects. One was selected and funded by the organization itself. The Spanish Bat Association is also collaborating with bat groups from Portugal and Gibraltar to study the ecology and population dynamics of species of common interest. Besides, it keeps an active surveillance of bat diseases with a close collaboration between the NGO, virologists, and wildlife rescue and rehabilitation centres. The NGO's efforts are now focusing on the screening for viruses in those bat species closest to humans. Finally, there is an increasing interest in the International Bat Night celebrations, and different activities were organized in the past year in more than 20 localities from different regions across the country, with an increasing impact on general public and the media.

**Vincent Wildlife Trust (United Kingdom):** The bat work of the Vincent Wildlife Trust (VWT) is focused on the needs of greater and lesser horseshoe bats, Bechstein's bat and the barbastelle. The core of the Trust's work remains the management of bat reserves in Britain and Ireland for horseshoe bats, which hold nationally significant populations of these species. In addition, the VWT is currently funding research with partners in academic institutions in Britain and Ireland, these include:

- PhD project at the University of Exeter on Bechstein's bat. This project aims to investigate the genetic structure and population size of the species in Britain using a combination of molecular and landscape ecology tools.
- PhD project with the University of Exeter on greater horseshoe bat researching landscape permeability issue for this species.
- PhD project with Waterford Institute of Technology (Ireland) on population genetics in the lesser horseshoe bat.

In 2015 the VWT published a report on the use of bat boxes in Ireland and it is currently involved in a pilot study assessing enhancements that can be made to farms for lesser horseshoe bats. Both of these projects are undertaken with the Irish Government.

## 6. Secretariat report

The Executive Secretary drew attention to the written report available as Doc.EUROBATS.AC21.4 and highlighted the most important points.

Referring to the Agreement membership and the recruitment of new Parties, the Executive Secretary stated that the accession of Serbia was in an advanced stage. The government procedures were completed, with the parliament ratification being postponed until after the election. He expressed his hope that Serbia would join the agreement during the course of the year. He also informed the delegates that Bosnia and Herzegovina was preparing its accession as well. The Executive Secretary encouraged the delegates of other Non-Party Range States to continue with their efforts and to approach the Secretariat if they needed any assistance and support with it.

Referring to the outreach activities the Executive Secretary reported that EUROBATS publication series continued to be in high demand, in particular publication series No. 6 (Guidelines for consideration of bats in wind farm projects *Revision 2014*) being the most recent published. The Guidelines were already translated into French and German, and the Executive Secretary expressed his hope that the lay out and printing of the translations would soon be completed. He welcomed translations of EUROBATS publications in other languages as well, and explained that due to the lack of funds these translations could not be printed, but that they could be made available on the EUROBATS website. The Executive Secretary further reported that other EUROBATS publications needed to be reprinted, and that the Secretariat was working on it, however that there had been some administrative obstacles. He informed the delegates that the UN introduced new accounting standards and a new accounting software as well. The Executive Secretary described that there had been quite a number of technical problems, but also problems in the use of the system, which had an impact on a number of activities, including also the EPI projects. He informed the delegates that two projects planned for the previous year had to be postponed to this one. On the other hand, a number of projects – in Bulgaria, Northwest Africa, Italy, and the Netherlands – started before the change and could be completed. Particularly worth mentioning was one project that had been conducted before but became operational only recently. It was the project of the Natural History Museum in Geneva making their World Bat Library available to bat specialists throughout the Agreement area. It was not a public system and experts needed to receive access to the library. All national focal points to EUROBATS had received access to it, and they were asked



to nominate other bat specialists as well. The Executive Secretary further informed the participants that the book “Bats in the Anthropocene: Conservation of Bats in a Changing World” was published and was already a big success. He thanked Switzerland, Germany, and Luxembourg for making the mentioned projects possible through voluntary contributions. He also thanked the Netherlands for its voluntary contribution that made the AC21 meeting possible and reminded the delegates that voluntary contributions were essential to be able to finance all the activities the Secretariat was coordinating.

Lastly, the Executive Secretary reported that the Secretariat received the final draft of the Joint Species Action Plan for the European Union just before the AC21 meeting started. The document was made available on the EUROBATS website as Inf. EUROBATS.AC21.5. It was explained that in case the delegates of the EU member states had any final comments to the draft, they should contact the representatives of their countries in the EU Habitats Committee. After the final review by the member states, the plan was to be adopted by the Habitats Committee in the near future.

## **7. Implementation of the Online Reporting System**

The Executive Secretary stated that, following the example of the CMS and other agreements, and based on the new format adopted by the MoP7, the online reporting system had been set up and was operational in a testing phase. All national focal points had received their credentials, some of them had already tested the system and had given the Secretariat very valuable feedback. The Secretariat invited all the focal points to do so as well.

## **8. Reports from Intersessional Working Groups (IWG)**

The Vice-Chair of the Advisory Committee, Dr. Danilo Russo, asked the Convenors of the Intersessional Working Groups to report on the activities of their groups since the last AC meeting.

The Convenor of the IWG on **Bat Conservation and Sustainable Forest Management**, Dr. Anthony Mitchell-Jones, announced that the IWG would convene during AC21 to look at the progress that had been made so far, and that they would submit a report after their meeting.

The Convenor of the IWG on **Monitoring Seasonal and Long-Distance Movements of Bats**, Dr. Dino Scaravelli, informed the delegates that at the moment the IWG had no report to make, but that this would be done after the group had met in the course of AC21.

The Convenor of the IWG on **Wind Turbines and Bat Populations**, Dr. Luisa Rodrigues, referred to the progress report on the work of the IWG available on the EUROBATS website as Doc.EUROBATS.AC21.8. The Convenor requested a meeting to discuss the work plan and a proposal of a questionnaire on post-construction monitoring and on implementation of mitigation and compensation measures which would be sent to the Parties and Non-Party Range States.

One of the Co-Convenors of the IWG on **Light Pollution**, Dr. Christian Voigt, also referred to the report submitted to the Secretariat and available on the EUROBATS website as Doc.EUROBATS.AC21.7. He further explained that the IWG had distributed a questionnaire and had already received feedback. In their meeting during AC21 they would decide on the next steps.

The Convenor of the IWG on **Conservation and Management of Critical Feeding Areas and Commuting Routes**, Ms. Eeva-Maria Kyheröinen, informed the delegates that since the last AC some revisions of the texts for the guidelines had been made, however, the document was not yet finished. The group would need to meet during AC21 to finalise their work.

The Convenor of the IWG on **Man-made Purpose-built Bat Roosts**, Dr. Henry Schofield, stated that the IWG continued to collect examples of man-made purpose-built bat roosts. The IWG also sent out a questionnaire, which unfortunately went out quite late. The group would convene during AC21 to analyse the responses and decide on the next steps to be taken.

One of the Co-Convenors of the IWG on the **Impact of Roads and other Traffic Infrastructure on Bats**, Ms. Jean Matthews, reported that the Convenor and other members of the IWG attended a workshop in Denmark in February 2016. The workshop was held as part of the Conference of European Directors of Roads (CEDR) project looking at the effectiveness of mitigation measures for the impacts of roads on bats. The project was due to report in June 2016. There would be a presentation of a summary of the workshop to the IWG at this meeting. There would also be a presentation on the UK research project on monitoring the effectiveness of mitigation for bats crossing linear transport infrastructure which was completed in 2015. The findings of both projects would be used in the development of the EUROBATS guidelines.

Professor Paul Racey reported for the IWG on **Communication, Bat Conservation and Public Health** and explained that the document which was submitted to the Secretariat before the meeting (available on the EUROBATS website as

Doc.EUROBATS.AC21.5) did not so much present a report on the activities of the IWG, but represented his views on the current state of bats and viruses, which he thought the IWG members might find useful for their work during the meeting.

The Convenor of the IWG on **Autecological Studies for Priority Species**, Dr. Stéphane Aulagnier, informed that there was nothing to report regarding the work of the IWG and that it would not convene during this meeting – the IWG would be reactivated just before the next MoP.

The Convenor of the IWG on **Monitoring and Indicators**, Dr. Jasja Dekker, explained that the IWG had already handed in the written report, available on the EUROBATS Website as Doc.EUROBATS.AC21.6, and that it would meet during AC21 to discuss the way forward.

The Convenor of the IWG on **Bat Rescue and Rehabilitation**, Dr. Helena Jahelková, reported that during the last meeting the participants of the IWG agreed to produce a draft version of the guidelines before the end of November 2015. Only part of the planned work had been done. The work on the draft of the guidelines would continue and new versions would be discussed at AC21. Since no new answers to the questionnaire had been received since last year, the Convenor asked those Parties and Non-Party Range States which had not yet submitted the questionnaire to do so. The questionnaire was available on the EUROBATS online work space or could be sent by email separately.

Dr. Jahelková, being also the Convenor of the IWG on **Bats and Insulation**, continued reporting for this IWG as well. The status of activities she had presented for the IWG on Bat Rescue and Rehabilitation would also apply for the IWG on Bats and Insulation. However, she emphasised that the problem of bats and insulation required immediate development of guidelines since insulation and renovation projects were running very intensively throughout Europe.

Dr. Dino Scaravelli reported on behalf of the Convenor of the IWG on **Education**, Dr. Hossein Zohoori, who could not attend the meeting. Dr. Scaravelli stated that a short report was submitted to the Secretariat and that the IWG would convene during the meeting to discuss the way forward. The Vice-Chair asked who was to be the Convenor of this IWG. Dr. Scaravelli explained that Dr. Zohoori would convene the IWG via Skype and that Dr. Scaravelli would take over the reporting for the IWG at this AC.

One of the Co-Convenors of the IWG on **Quality of Assessments and Experience and Skills of Experts**, Ms. Ruth Peterman, referred to the written report that was available on the EUROBATS website as Doc.EUROBATS.AC21.9. She stated that the IWG sent out two questionnaires and that it requested a meeting during this AC to discuss the responses received as well as to agree on the way forward.

The Convenor of the IWG on the **Conservation of Key Underground Sites**, Dr. Anthony Mitchell-Jones, announced that no report had been submitted and that there was no need for the IWG to meet at AC21. He welcomed any further contributions from Parties and Non-Party Range States that had not already submitted their data, but at the moment there was no need for revising the information on the underground sites.

The Convenor of the IWG on the **Format of National Reports**, Dr. Stéphane Aulagnier, reminded the delegates that this IWG also intended to meet during AC21.

In addition, the EUROBATS scientific officer, Dr. Suren Gazaryan, reminded the Chair that during the 20<sup>th</sup> meeting of the Advisory Committee France proposed to revive the IWG on **Overground Sites**, and to consider the possibility to use the data base for underground sites to also include data for overground sites. There would be a meeting on this topic as well.

The Chair reminded the IWGs and their Convenors that the success of the meeting and the continued productivity and relevance of EUROBATS relied on the effectiveness of the individual Working Groups. He encouraged the IWGs to work hard during the meeting and to report back with clear strategies for the completion of the work that had been allocated to them by the MoP.

## **9. Reports from working groups convened during the Meeting**

The Convenors of the IWGs were asked to submit a short report from their meetings, also indicating what activities the IWG planned in order to complete its tasks.

The Convenor of the IWG on **Bat Conservation and Sustainable Forest Management**, Dr. Anthony Mitchell-Jones, reported that the meeting of the IWG opened with a presentation from Mr. Peter Twisk from the Netherlands summarising a workshop on bats and forestry held in the Netherlands in autumn 2015. The main conclusions of the workshop were that advice to foresters should focus on bat habitats and populations in forests, advice should be as clear as possible, and more effort was needed to translate guidance into good practice. An article for the journal "Frontiers in Ecology and Evolution" was currently in preparation. The group then reviewed Resolution 7.7 to look at the ways in which it might help the Parties deliver its

requirements. The list of priority research topics had already been completed and should be publicised as widely as possible, including the research community and NGOs, and placed on the EUROBATS website in an accessible way. At the moment it was unclear how many of the Parties had developed their own guidance on bat conservation and forestry, as was proposed in Resolution 7.7, but it was noted that the new format of national reporting should produce these data by the next MoP. In the meantime, efforts should be made to collect whatever guidance was available and disseminate it through the website, perhaps with translations into other languages to increase accessibility. The IWG also recognised the value of collaboration with the IWG on Education, to ensure that information about bats and forestry was integrated into educational courses for foresters. A further way of embedding bat conservation into forest management could be through forest certification schemes, and the Convenor undertook to look at the standards associated with the Programme for the Endorsement of Forest Certification (PEFC) and report to the next meeting.

The Convenor of the IWG on **Monitoring of Daily and Seasonal Movements on Bats**, Dr. Dino Scaravelli, reported that the following actions had been identified for this IWG at AC20:

- Collect and revise available literature to provide an updated status, in particular related to mapping long distance movement, corridors, and stop over points;
- Try to identify the main knowledge gaps on species or geographical area;
- Review the ongoing research;
- Update the Parties and send a questionnaire to verify knowledge and information gaps;
- Provide indications to the Parties for the next MoP to increase monitoring in transboundary movements.

Due to a number of drawbacks the work programme identified at AC20 could not be actively pursued in the planned time frame, so these actions were re-examined during AC21.

Firstly, a short overview was done to recall the terms of reference of the IWG. Mr. Marcus Fritze then provided a short report on the ongoing project in the German federal territory related to migration. The discussion continued on the different approaches using classical and modern techniques such as GPS, isotopes, new tracking devices, and citizen science methods to gather information on the movements of bats. Some important ringing projects were also on-going and related schemes to

increase the knowledge on bat movements were also recalled. Ms. Elena Stoeva underlined how the contact and exchange of information with bird ringers provided very useful information on bats. As previously highlighted, it was fundamental to contact international and national authorities related to bird ringing and migration studies, to encourage common work and, at least, identify stations where bats were regularly caught.

Attention was also paid to the possibility of using the times of colonization and arrival in bat boxes to contribute to the study of bat movements. In this regard, it was proposed to explore the possibility to have more contacts with the database that was being built on the Dutch bat-boxes and any other similar schemes. There were suggestions to consider the presence of singing males of *P. nathusii* as an indirect sign of the possible passage of migratory females. The IWG agreed that it would be useful to know if this approach could also be used for other species.

Dr. Javier Juste mentioned the importance of classical and new genetic tools to provide information about possible movement and population composition of bats. He also informed the group about the intention to create a project on the value of the Straits of Gibraltar in bat movement between Spain and North Africa.

At the end the group summarized its future work:

- Continue to collect literature on the subject, encouraging authors and authorities to send copies to the group or to the Bat Library;
- Investigate the possible existence of the so called migratory corridors for the different species, based on scientific bases;
- Verify the presence and the role of stopover localities or territories;
- Collate information on projects using pit tags, including information on project title, location, lead researchers, and possibly pit tags ID numbers;
- Improve the understanding of species that show geographically different behaviours, for example *P. pygmaeus*, that is a migrant at least in central-eastern Europe but resident in others.

The idea of collecting all the information and research into a position paper was discussed but it was deferred until the next AC meeting, after an active phase of information gathering.

The IWG also identified future actions and possible people responsible for them:

- Contact IWGs on Wind Turbines, Critical feeding areas, and Forest Management about common issues – Convenor;
- Provide contact information for international and national authorities involved in bird ringing – Convenor;
- Review recent papers and reports on migration – Mr. Marcus Fritze, Bundesverband für Fledermauskunde Deutschland e.V., Germany;
- Review the role of genetics in movement studies – Dr. Javier Juste, SECEMU, Spain;
- Investigate the scientific bases of the so called migratory corridors and stopover localities or territories – ?;
- Collate information related to Pit Tag monitoring – ?;
- Review information on species which show different behaviours in different parts of their range – Dr. Lena Godlevska, Ukraine.

The IWG would work on these actions and present an update at the next AC meeting.

The Convenor of the IWG on **Wind Turbines and Bat Populations**, Dr. Luisa Rodrigues, reported that the work-plan was revised, and the membership of some sub-groups was changed. A proposal of a questionnaire on post-construction monitoring and on implementation of mitigation and compensation measures was analysed; the questionnaire would be finished by the subgroup on “Implementation of mitigation and post-construction monitoring” and would be circulated by the Secretariat to scientific and administrative focal points in the near future.

### Work-plan

<b>Sub-group</b>	<b>Coordinator (c) and members</b>
Update/reorganizing of the list of references	Marie-Jo Dubourg-Savage (c) Laurent Biraschi
Compilation of data on bat mortality per country	Marie-Jo Dubourg-Savage (c) Lothar Bach
Updating of tables on monitoring studies done in Europe and on bats' behaviour in relation to windfarms	Anna Nele Herdina (c) Laurent Biraschi Marie-Jo Dubourg-Savage
Mitigation and compensation measures	Joana Bernardino (c) Branko Karapandža Dino Scaravelli Lothar Bach Luisa Rodrigues Thierry Kervyn

Estimation of mortality rate taking into consideration predation, efficiency and controlled area; choice of best estimator for Europe	Lothar Bach (c) Dino Scaravelli Jasja Dekker Joana Bernardino Petra Bach Rita Bastos
Impact of mortality rate on populations	Jasja Dekker (c) Christian Voigt Lothar Bach Rita Bastos Emrah Çoraman
Deterrents	Lothar Bach (c) Branko Karapandža Dino Scaravelli Luisa Rodrigues
Maximum foraging distances of species and detectability coefficients to compare activity indices	Marie-Jo Dubourg-Savage (c) Eeva-Maria Kyheröinen Dina Kovač Zuhair Amr Christine Harbusch
Collect national guidelines	Andrzej Kepel (c) Branko Micevski Dina Kovač Jan Collins
Use of dogs vs humans during carcass searches	Dina Kovač (c) Fiona Mathews Jan Collins Joana Bernardino Petra Bach
Comparing measurement of activity at ground level and rotor height	Lothar Bach (c) Jan Collins Johanna Hurst Marie-Jo Dubourg-Savage Petra Bach Thierry Kervyn
Small Wind Turbines	Kirsty Park (c) Lothar Bach
Offshore windfarms	Lothar Bach (c) Jasja Dekker Herman Limpens
Wind farms and forests	Christine Harbusch (c) Christian Voigt Andrzej Kepel Branko Karapandža Fiona Mathews Lothar Bach Thierry Kervyn Johanna Hurst Ruth Petermann



Implementation of mitigation and post-construction monitoring	Daniela Hamidović (c) Branko Micevski Per Ole Syvertsen Jasja Dekker
200m buffer distance to habitats particularly important for bats	Branko Karapandža (c) Noam Leader Mirna Mazija
Sensitivity maps	Noam Leader (c) Mirna Mazija

One of the Co-Convenors of the IWG on **Light Pollution and Bats**, Dr. Christian Voigt, reported that during the IWG meeting the Convenors informed the members of the IWG on the feedback received from the countries in response to the questionnaire that was sent out after the 20<sup>th</sup> AC meeting in 2015. The Convenors summarized that the legislative situation related to light pollution and bats was diverse. Yet, it was well documented, both based on unpublished reports and on scientific papers, that bats were affected by light pollution. The effects of artificial light on bats seemed to be species and context dependent. Also, artificial light seemed to be relevant for environmental impact assessments, however general guidelines were not available in many countries and, thus, the practice of mitigating the effect of artificial light on bats varied largely between countries. It was agreed that the IWG should proceed in providing guidelines.

The Convenors suggested a timeline for developing and finalizing guidelines related to artificial light and bats. It was suggested that the IWG was divided into subgroups that compile information on certain topics and that the coordinators of these subgroups would meet at the end of 2016 to work out a first draft. It was further agreed that the coordinators and members of these subgroups could be recruited from outside the IWG according to the specific expertise needed. Dr. Christian Voigt suggested meeting in Berlin at the end of 2016 for developing a first draft of the guideline during a workshop. It was pointed out that there was currently no budget available to cover the costs of coordinators to participate in such a workshop. It was put forward that interested people could participate in a Skype conference and work on the draft remotely. Members of the IWG suggested organizing a small seminar before the workshop. During this seminar, invited speakers could provide a review on the state of knowledge related to light pollution and bats. This might enable other participants to apply for funds. The Convenors further suggested submitting a first draft of the guidelines to AC22 to be held in spring 2017 and a finalized draft to the AC23 to be held in spring 2018. After AC23 the finalized draft of the guidelines should be circulated

and formally submitted to the member countries so that the MoP meeting in fall 2018 may decide on it. The members of the IWG agreed on this procedure.

The Convenors agreed to send the power point presentation displayed during the session and the compilation of responses related to the questionnaire to all IWG members as listed in the list of participants (Annex 2 to the Record).

The Executive Secretary commented that the Secretariat would try to assist in finding funds for the planned workshop.

The Convenor of the IWG on the **Conservation and Management of Critical Feeding Areas, Core Areas Around Colonies and Commuting Routes**, Ms. Eeva-Maria Kyheröinen, reported that during the IWG meeting she gave a short update on the background and work done so far by the group. The main task arising from the latest resolution 7.8 was finalizing the guidelines. The table of contents of the guidelines was presented and the group also discussed the progress that had recently been made. Many of the species texts had been updated and amended based on new literature. It was agreed that the rest of the species texts should be checked and revised by the persons responsible for each text. Some comments to the guidelines had already been received. Including into the guidelines the concept of Core Sustainance Zone, launched by the BCT recently, was also discussed.

The group agreed on the following tasks and timetable:

- Convenor to contact some of the species text writers as soon as possible, asking them to check and revise the text. New references to be sent as well, when available;
- Updated version of the guidance to be sent to the IWG and all focal points;
- Feedback to be requested by 30.11.2016;
- New version to be prepared, taking comments into consideration;
- Proofreading;
- Guidance to be sent to the Secretariat for layout in the end of 2016.

Several group members volunteered to do proofreading. Help from the Secretariat was needed in preparing the layout of the final draft. The Secretariat also informed that there were pictures (species and habitats) available to illustrate the guidance document.

The Convenor of the IWG on **Man-made Purpose-built Bat Roosts**, Dr. Henry Schofield, stated that the IWG discussed innovative bat roost creation projects in Germany, Portugal, Poland, the Netherlands and Saudi-Arabia. The recently circulated questionnaire, which focused on the adaptation of existing structures for bats, generated a few more examples for the case studies. However, the majority of the returned questionnaires had negative responses. There were still some outstanding questionnaire returns and the group would be grateful for any more information from scientific focal points.

It was decided that the best approach to reporting on this IWG would be to group the case studies by species and then roost types. Where counties had many examples, such as the creation of numerous hibernacula in the Netherlands, only examples that highlighted the most effective features would be used.

One of the Co-Convenors of the IWG on the **Impact of Roads and other Traffic Infrastructure on Bats**, Ms. Jean Matthews, reported that their meeting focussed on two research projects. Firstly, Dr. Jasja Dekker presented the initial results of the Conference of European Directors of Roads (CEDR) project looking at the effectiveness of mitigation measures for the impacts of roads on bats. Dr. Jasja Dekker was a member of the consortium of researchers on this project. The project was due to report in June 2016.

Secondly, Ms. Jean Matthews described a UK project on “determining a cost-effective methodology to monitor the effectiveness of mitigation for bats crossing linear transport infrastructure”. The report recommended setting criteria to evaluate the success of mitigation. It provided standard methodologies for evaluating the impacts of a road or railway line on the local bat population by monitoring bat activity at a landscape scale. It also provided recommendations for survey methods to assess the impacts of mitigation structures. The study found that the presence of large roads had a negative impact on local bat populations. The results in relation to railway lines were not conclusive, but only two railway lines were studied. It also found that some mitigation structures (green bridges and underpasses) were effective and others were not (bat gantries).

Ms. Jean Matthews also reported on the current state of the EUROBATS guidelines. So far there were draft chapters on the background and introduction, literature review, impacts, environmental impact assessment and mitigation. These would be reviewed in the light of the forthcoming CEDR report, due in June 2016. The IWG members producing the EUROBATS guidelines would work with the CEDR researchers to

ensure that the recommendations of both parties were consistent, particularly the recommendations for monitoring and mitigation.

Mr. Branko Karapandža highlighted some recommendations from the draft EUROBATS guidelines. To be effective mitigation measures had to be: -

- aimed at minimizing barrier effect and collision risk simultaneously (and possible genetic effects), i.e. to ensure permeability and safe crossing;
- targeted to the species affected at the site;
- on pre-existing traditional commuting routes;
- functionally integrated into (connected to) landscape and habitat;
- undisturbed and free of danger during the night (appropriate lighting, protective vegetation or screens, etc.);
- developed in advance and planned alongside traffic development planning;
- implemented in a timely fashion – some measures have to be put in place before construction work starts;
- permanent and properly maintained.

There was discussion about the research projects and proposed guidance, including the importance of undertaking surveys in seasons most likely to detect movements of bats – not just commuting, but also seasonal and migratory movements.

The publication was being written by Ms. Jean Matthews, Mr. Branko Karapandža and Mr. Primož Presetnik in conjunction with Dr. Jasja Dekker. It was intended to publish the EUROBATS guidelines before the next AC. The Convenors welcomed any case studies or examples of good practice for inclusion in the publication, especially if they had not already sent these to the CEDR project or to the IWG. Photographs were also welcome.

The Convenor of the IWG on **Communication, Bat Conservation and Public Health**, Professor Paul Racey, reported that:

- Attention was drawn to the short review of Bats and Viruses prepared by the Convenor and circulated with the meeting documents, with particular reference to MERS. Dr Abdulaziz Alagaili referred to the tendency of the media in Saudi Arabia to blame bats for MERS on the basis of an RNA fragment of 200 base pairs which was identical in a single *Taphozous perforatus* and a MERS patient. Antibodies to MERS were however repeatedly found in dromedary camels.

- As already reported by Mr. Per Ole Syvertsen, EBLV2 was found in a single *Myotis daubentonii* in Norway in 2015 and the ensuing press coverage was balanced. EBLV1 was found in seven *Eptesicus serotinus* in Ukraine, and was also found in the same species in Prague. In Sweden, ca. 10% of *M. daubentonii* tested were seropositive although antibodies were no longer present in some individuals from year to year.

Mr. Peter Lina introduced a new schedule for EBLV vaccination, boosters and titre testing which would be circulated more widely when it had been further validated.

- Mr. Marcus Fritze briefly reviewed the current occurrence of *Pseudogymnoascus destructans* in Europe and Asia and White Nose Syndrome in North America, and raised the possibility of the fungus returning to Europe with increased virulence, and suggested having an Action Plan for this eventuality. Dr. Luisa Rodrigues reminded the group that EUROBATS resolution 6.6 placed a responsibility on member states to plan for the possibility of WNS affecting bat populations. It was clear from the discussion that the disinfection procedures which were recommended when WNS first emerged in North America were no longer observed in several European countries because the threat of infection had receded.
- Ms. Eeva-Maria Kyheroinen drew attention to recent work in Finland on the occurrence of *Bartonella* in bat faeces, and the fact that this bacterium could cause disease in humans, including endocarditis. This suggested that gloves should be worn when handling bat faeces.

The Convenor of the IWG on **Monitoring and Indicators**, Dr. Jasja Dekker, reported that the IWG was established to: 1. Develop, and periodically update, a pan-European population indicator based on existing data (through BatLife Europe); 2. Build capacity for monitoring in countries which did not have national monitoring schemes; 3. Develop a data sharing structure for monitoring data.

During the meeting the IWG discussed the process and timeline for Aim 1. BatLife Europe had approached those NGOs involved in the development of the prototype indicator previously, and several other NGOs that had expressed an interest in joining a next version. The IWG reviewed this list. A number of new potential participants, NGOs, or focal points from the following countries expressed an interest to join this new effort, being, in random order, Spain, Tunisia, Israel, Finland, Norway, Montenegro, Macedonia, Switzerland, Azerbaijan, Poland, Ireland, Croatia, Armenia and Morocco. These new participants would be send a document with an outline of the project and the data requirements. The work consisted of calculating a national trend

of species found in hibernacula, and sending this trend and metadata to BatLife Europe. Together with Statistics Netherlands a new hibernacula indicator would be calculated from this. The plan was to gather national trends in 2016, and develop the new indicator during a workshop in spring 2017. Additionally, in 2016 the IWG hoped to organise regional workshops on the management and analyses of their data.

The group then proceeded to Aim 2. The practitioners of the IWG were asked if they had specific needs to start or strengthen national monitoring schemes. Although many had needs in the fields of money, knowledge, or experienced people, no specific needs that could be turned into projects or subsidy requests were identified during this session.

The Convenor also reported that no progress had been made with regard to Aim 3, as they were for the time being focusing on using the data that was managed and held in the different countries themselves.

Until the next IWG meeting, the IWG would take the work on the indicator forward as described above, with Dr. Jasja Dekker as Convenor of the IWG, and Mr. Primož Presetnik in his capacity as trustee of BatLife Europe, taking the lead. The IWG welcomed suggestions of needs for carrying capacity from the IWG members.

The Convenor of the IWG on **Bat Rescue and Rehabilitation**, Dr. Helena Jahelková, reported that the main goal of the IWG for the time being was preparation of the guidelines on bat rescue and rehabilitation in view of bat conservation, public education and collection of faunistic data. During AC21 the IWG members worked on the development of the contents of the guidelines. The list of required case studies was discussed and agreed. The schedule for further work and duties of the members of the IWG were worked out and agreed. The members of the IWG asked the Secretariat to remind the Parties and Non-Party Range States, which had not yet submitted the questionnaires, to do so after the meeting (in a .doc form or online).

Chapter provisional name	Chapter description	Responsible member	Deadline
Introduction	General goals of the guidelines	Lena Godlevska	30.11.2016
<b>Basics for handling, transporting and keeping bats</b>		<b>Helena Jahelková,</b> Lena Godlevska, Peter Lina	<b>Partly done,</b> 30.11.2016
<b>Health risks for bat rehabilitators</b>	<b>Rabies, etc.</b>	<b>Peter Lina</b>	<b>Done,</b> <b>awaiting adoption</b>

<b>Data collected by BRR used in science and conservation</b>	<b>Standard protocols suggested by EUROBATS will be part of it and outcomes from analysis in period</b>	<b>Helena Jahelková</b> Lena Godlevka Kit Stoner Write request Andrzej Kepel – distribute to BRC	<b>Partly done by Czech Republic, 31.11.2016</b>
<b>Situation in the Parties and Non-Party Range States</b>	<b>Results from questionnaires</b>	<b>Lena Godlevska –circulate questionnaires</b>	<b>Partly done for 36 countries, waiting for new questionnaires, 30.11.2016</b>
FAQ	FAQ during calls from public	Kit Stoner	30.11.2016
Bats in public education	According to the BCT model, recommendation for disabled bat displays to public	Kit Stoner	Chapter to be circulated among the Parties and Non-Party Range States for comments. 30.11. 2016
<b>List of Reference</b>	<b>References to publication about effectiveness and value of rehabilitation for conserving population (incl. USA)</b>	<b>Lena Godlevska</b>	<b>Partly done, updates 30.11 2016</b>
	<b>References to manuals, guidelines, comprehensive papers dealing with BRR, etc., together with online access if available</b>	<b>Lena Godlevska</b>	<b>Partly done, updates 30.11 2016</b>
List of organization (BRR centres) and persons in the Parties and Non-Party Range States		Lena Godlevska – contact responsible persons by mail, extracting also national report information	31.12.2016

Legislation and BRR	Laws concerning BRR and ARR, exceptions	Helena Jahelková	Questions will be circulated among IWG members until 30.5 and later to all the Parties and Non-Party Range States, 30.11.2016
Case studies	Promotion and education, conservation of roosts, carcasses for virological research, a method for collecting new faunistic data experiences with establishing new centres and models of current rehabilitation centres in countries, etc.	Mirna Mazija, Dino Scaravelli, Helena Jahelková, Kit Stoner, Lena Godlevska	30.11.2016

Dr. Jahelková further proceeded to report on the meeting of the IWG on **Bats and Insulation**. The main goals of this IWG were to collect and share information on best practice for surveys, on avoidance of fatalities and roost loss, as well as on effective mitigation and compensation measures, and to develop guidelines. The name of the group was discussed to include both insulation and the use of other modern construction materials such as breathing membranes. The name „**Bats, Insulation and Lining Materials**“ was agreed upon.

Particular chapters of the draft guidelines (general review of bats, buildings and biology in relation to insulation, pre-insulation surveys, methods, materials and solutions used in insulation by polystyrene blocks) and modifications in the contents were discussed. The deadline for the collection of data and for writing draft versions of particular chapters of the guidelines was set for the end of November 2016. The results of the survey about modern roofing membranes, its effectiveness, and threat for bats, was presented by Ms. Stacey Waring. Two other presentations warned against anthropogenic deadly traps, such as vertical shaft in blocks of flats, window traps, and bats in gas heaters. The group would also collect evidence referring to deadly traps, but it would mostly concentrate on developing guidelines. The need to prepare a new resolution for the MoP8, which would also include the problem of modern roofing membranes, was discussed.



The IWG asked the Secretariat to remind the Parties and Non-Party Range States, which had not yet done so, to fill in the questionnaires on EUROBATS work space and circulate them in .doc form.

Chapter provisional name	Chapter description	Author	Deadline
<b>Introduction</b>	<b>Bats &amp; buildings in general, main threats, bat cycle and basic biology related to buildings, insulation in general</b>	<b>Helena Jahelková</b>	<b>Done; comments requested</b>
Situation in European countries	Results from questionnaires - overview in countries	Helena Jahelková	Circulate again questionnaires among the Parties and Non-Party Range States and request answers from those that had not yet submitted them
Methods and materials used in insulation	<b>Panel house insulation by polystyrene + foam</b>	<b>Helena Jahelková</b>	<b>Done, comments requested</b>
and main threats	Wall insulation „glass fibre wall“	Dina Kovač, ? anybody who notice this type of insulation	31.11.2016
and technical solution of different types of insulation	Breathable roofing membranes	Peter Lina, Kit Stoner, Stacey Waring	31.11.2016
and compensation	Other roof insulation + wall insulation	Kit Stoner	31.11.2016
	Clay	Abdulaziz Alagaili	31.11.2016
	„Wall on wall“ insulation	Marcel Schillemans	31.11.2016
	<b>Type of bat boxes available</b>	<b>Christian Voigt, Ruth Petermann, Jasja Dekker, Martin Celúch</b>	<b>Partly done by Germany, other types of bat boxes needed 31.11.2016</b>
	„House to house“ insulation	Marcel Schillemans	31.11.2016
	Other types		

Results of mitigation measurements	Surveys of use of newly installed bat boxes on insulated houses	Helena Jahelková	31.11.2016
Education	Workshops and educational programs for stakeholders, national guidelines leaflets, webpages – experiences with promotion	Tomasz Kokurewicz, Janusz Hejduk	31.11.2016
<b>Pre-insulation survey</b>	<b>Pre-insulation survey – methods in different countries</b>	<b>Helena Jahelková, Marcel Schillemans, other countries with pre-insulation survey</b>	<b>Partly done by Czech republic</b> 31.11.2016
<b>Case examples (probably distributed in particular chapters)</b>	Positive and negative	Tomasz Kokurewicz, Janusz Hejduk, Helena Jahelkova, Kit Stoner	31.11.2016
References	Manuals, leaflets, booklets, papers, etc., concerning bats and insulation and bats in buildings in national language (citation, www)	Dino Scaravelli, Luisa Rodrigues; Marie-Jo Dubourg-Savage, Tomasz Kokurewicz, <b>Helena Jahelková</b> , Martin Celúch, Kit Stoner, Stacey Waring	31.11.2016
List of contacts and websites		„-“	31.11.2016
<b>List of companies (www) offering bat boxes for buildings</b>		<b>Helena Jahelková, Ruth Petterman, Jasja Dekker</b>	<b>Partly done</b>
Other			

Ms. Triinu Tõrv, who following the suggestion of the Chair, agreed to be the Co-Convenor of the IWG on **Education**, reported that the IWG tried to establish a skype connection to Dr. Hossein Zohoori, but that due to technical issues this was not possible. Dr. Dino Scaravelli convened the meeting and gave an overview of the IWG's previous work. The Education IWG was established during AC19 in Heraklion. The time at this meeting was used to specify aims and to set the tasks for the next period before AC22.

The aims of the IWG were:

- To create guidelines and educational materials/references ready for use and adaption by educators on bats. (EUROBATS website);
  - The emphasis should be placed on educational materials for 11-14 and 15-18 year old students. The materials should correspond to the main aims of scientific syllabi, while also integrating the historical, social, ethical, cultural, and technological fields. Materials should aim for supporting STEM and STEAM approach.
- To provide support for the educators in the possible form of workshops/training.

The workplan of the IWG was:

- To put together a list of bat organisations that have a department/specialists dedicated to education, which was important for further cooperation;
  - Room for the list in workspace (Ms. Triinu Tõrv)
  - Possible cooperation with BatLife to inquire information (Dr. Dino Scaravelli)
  - Gaining information during IBRC (Ms. Kit Stoner)
  - Contacting „Noctalis“ to check the possibility for cooperation
- To collate a list of existing examples of educational materials (with links) which would be published on the EUROBATS website when finished;
  - To gather the educational material examples sent in so far and to upload them to the IWG work space. (Dr. Suren Gazaryan and Dr. Hossein Zohoori);
    - To include the description of the method of Life Café (Dr. Hossein Zohoori)
  - To further ask the EUROBATS colleagues for examples of educational material (Ms. Triinu Tõrv and Dr. Hossein Zohoori). The request should be sent per e-mail and not in the form of a questionnaire;
  - To ask the Secretariat to allocate room on the EUROBATS website.
- To collate training material (course material) for educators on bats;
- To create a template slideshow introducing the basic benefits of bats (free license). The aim was to enable teachers to use this material, translating and personalising it where necessary.
  - e.g. The Bat Conservation Trusts' Education Pack  
[http://www.bats.org.uk/pages/for\\_teachers.html](http://www.bats.org.uk/pages/for_teachers.html)
- To create worksheets/activity instructions connected with bats and organize them by topic (based on the general aims of most school curricula, such as data handling, data analysing, environmental relationships, ecosystem services, etc.).

Differentiation should be made in terms of age groups and topics, and it should also be considered to integrate other than natural sciences subject fields.

- Topic of urban ecology, ecosystem services and bats (Mr. Niels de Zwarte)
- To look into the possibility of organising workshops for educators (summer school) in the Parties and Non-Party Range States.

Mr. Herman Limpens reminded the delegates of a project that took place in Germany and started after the Meeting of the Parties in Bristol, UK, which referred to the topic of education and was intended to develop guidelines. Ms. Ruth Petermann reported that the result of this project was material for public work, which could be made available to the IWG.

One of the Co-Convenors of the IWG on **Quality of Assessments and Experience and Skills of Experts**, Ms. Ruth Peterman, reported that the answers to the questionnaire that had been sent to all the Parties were presented to the members of the IWG. After that the second questionnaire, which had been distributed to the members of the group, was discussed. A draft table of necessary skills and knowledge was prepared. It was decided that this draft table would be developed further and, after a final check by all the IWG members, it would be submitted to the next MOP as an annex to a resolution. Once this aim was reached, the group would tackle the objective of setting criteria regarding the standards of the evaluation standards.

The Convenor of the IWG on the **Format of National Reports**, Dr. Stéphane Aulagnier, reported that the IWG reviewed the online reporting prepared by the Secretariat on the basis of Doc.EUROBATS.AC20.11.rev1. Some slight modifications had been requested in parts 2 and 3, “Conservation Status of Bats within the Territory of the Party” and “Measures taken to implement Article III of the Agreement” respectively. The Secretariat should provide to the Parties and Non-Party Range States a pdf file with all boxes to fill up in order to prepare texts before the reporting. For reports in subsequent years a prefilled previous report would be made available with texts in different colour and the possibility to tick “yes” if no change had to be reported. Having completed its work, the IWG was disbanded.

Dr. Stéphane Aulagnier further reported on the ad hoc meeting on the topic of **Overground Roosts**. According to the first paragraph of Resolution 5.7 the Parties and Non-Party Range States should “establish national databases of important overground roosts”. Whether these databases should be transmitted to the EUROBATS Secretariat to prepare a list over the geographical scope of the Agreement, similar to the list of important underground roosts, was the subject of

discussion. Dr. Anthony Mitchell-Jones explained what the benefits of listing the important underground roosts were: national conservation issues and information on roosting behaviour of cave-dwelling species over Europe (all over the year). The discussion mainly focused on the need for criteria to identify what were important overground roosts which can shelter different species than underground roosts. A paper will be prepared on this topic for further discussion at the next AC meeting.

The Vice-Chair thanked the Convenors for their reports. The Chair reminded the delegates that they should actively participate in the work of the working groups, not only during the meetings, but also in the period between the meetings, as this was the core task of the AC.

#### **10. Date and venue of the 22<sup>nd</sup> Meeting of the Advisory Committee**

The Executive Secretary informed the delegates that, similar to last year, there was a country considering inviting the Advisory Committee meeting. However, it was not possible to reveal the name of the country at this stage, since the invitation was not confirmed. Both the Secretariat and the representatives of the country were optimistic that the formal invitation would be made, and the Executive Secretary intended to notify the delegates as soon as there were any news with this regard.

#### **11. Any other business**

Dr. Stéphane Aulagnier pointed out that, since in France International Bat Night (IBN) had been organized for many years, in order to keep the attention of the media, it was a standard practice to identify a theme for IBN each year. He suggested that this theme could be shared at the European level. Dr. Noam Leader supported this suggestion and reminded the delegates of the International Migratory Day, for which a topic as well as suggestions for information material were received from the CMS Secretariat every year. It was agreed that the theme for this year's IBN should be "bats and agriculture" since it had already been identified as this year's IBN theme in France. Dr. Aulagnier also suggested that it might be on short notice identifying topics for IBN at the AC meetings, since these took place only a couple of months before IBN. It was, therefore, agreed that the Secretariat could make proposals before the AC meeting and that at each AC meeting the topic for the following year's IBN could be identified. In this sense, "bats and forestry" was chosen as the topic for IBN in 2017.

Mr. Branko Karapandža noted that the number of delegates at the AC meetings representing European countries with economies in transition was decreasing each year. The Chair explained that before every AC meeting the Secretariat spent a lot of

time trying to ensure that focal points from all the Parties and Non-Party Range States could attend the meeting. Unfortunately, it was not possible for all the focal points to attend the meeting every year. The Chair reassured the participants that there was no steady decline in the number of delegates at the meetings, and that the Secretariat, the Chair, and the Vice-Chair would continue watching over this.

Finally, the Chair invited all the delegates to make suggestions as to how the AC meetings could be made even more productive, for EUROBATS as well as for the delegates and their countries. He encouraged the delegates to approach him, the Vice-Chair, or the Secretariat with proposals as to how the meetings could be organized differently to make them even more useful to the delegates. In addition, he again stressed the importance of active participation of the delegates in the AC meetings and in the Working Groups, as it was the work of the IWGs that determined the success of EUROBATS.

## **12. Adoption of the record of the Meeting**

The record was adopted unanimously.

## **13. Close of Meeting**

There being no further business, the meeting was closed at 17:12.

## 21<sup>st</sup> Meeting of the Advisory Committee

Zandvoort, Netherlands, 18 – 20 April 2016

### List of Participants



#### **PARTIES**

##### **ALBANIA**

Dr. Aurora Dibra  
University of Shkodër  
Faculty of Natural Sciences  
Department of Biology and Chemistry  
4001-4007 Shkodër  
Tel/Fax: +355 22 8006 51  
Mob: +355 69 275 4158  
Email: adibra@yahoo.com

##### **BELGIUM**

Mr. Jeroen Panis  
Agency for Nature and Forests  
Government of Flanders  
Koning Albert II - laan 20 bus 8  
1000 Brussels  
Mob: +32 474 881 037  
Fax: +32 2 553 8105  
Email: jeroen.panis@lne.vlaanderen.be

##### **BULGARIA**

Ms. Elena Stoeva  
Green Balkans – Stara Zagora NGO  
Stara Planina 9  
6000 Stara Zagora  
Tel/Fax: +359 42 622 401  
Mob: + 359 887 574 699  
Email: etilova@greenbalkans.org

##### **CZECH REPUBLIC**

Dr. Helena Jahelková  
Charles University  
Department of Zoology  
Viničná 7  
12844 Prague 2  
Tel: +420 2 2195 1848;  
Mob: +420 728 504240  
Fax: +420 2 2195 1841  
Email: helena.jahelkova@seznam.cz

##### **FINLAND**

Ms. Eeva-Maria Kyheröinen  
University of Helsinki  
Finnish Museum of Natural History  
LUOMUS  
P.O. Box 17  
(Pohjoinen Rautatiekatu 13)  
00014 Helsinki  
Tel: +358 2941 28865  
Mob: +358 50 318 2338  
Email: eeva-maria.kyheroinen@helsinki.fi

##### **FRANCE**

Dr. Stéphane Aulagnier  
Université Paul Sabatier, Toulouse III  
Comportement et Ecologie de la  
Faune Sauvage (CEFS)  
INRA  
CS 52627  
31326 Castanet-Tolosan Cedex  
Tel: +33 5 6128 5133  
Fax: +33 5 6128 5500  
Email: stephane.aulagnier@toulouse.inra.fr

##### **GEORGIA**

Mr. Ioseb Natradze  
Field Researchers' Union "Campester"  
Tamarashvili Str. 2a, Apt 6  
0162 Tbilisi  
Institute of Zoology of Ilia State University  
Kakutsa Cholokashvili Ave 3/5  
0162 Tbilisi  
Tel/Fax: +995 32 222 4104  
Mob: +995 599 554 240  
Email: ioseb.natradze@iliauni.edu.ge

## **GERMANY**

Ms. Ruth Petermann  
Federal Agency for Nature Conservation  
BfN  
Division II 1.1  
Konstantinstr. 110  
53179 Bonn  
Tel: +49 228 8491 1428  
Fax: +49 228 8491 1419  
Email: ruth.petermann@bfn.de

## **IRELAND**

Dr. Ferdia Marnell  
National Parks and Wildlife Service  
Department of Arts, Heritage and the  
Gaeltacht  
7 Ely Place  
Dublin 2  
Tel: +353 1 888 3290  
Mob: +353 87 6697 109  
Fax: +353 1 888 3278  
Email: ferdia.marnell@ahg.gov.ie

## **ISRAEL**

Dr. Noam Leader  
Israel Nature and Parks Authority  
3 Am Ve'Olam Street  
95463 Jerusalem  
Tel: +972 2 501 4801  
Mob: +972 50 5063 126  
Fax: +972 2 500 6281  
Email: leader@npa.org.il

## **ITALY**

Dr. Danilo Russo  
Università degli Studi di Napoli Federico II  
Dip. di Agraria, Lab di Ecologia Applicata  
Via Università 100  
80055 Portici (Naples)  
Tel: +39 081 253 2017  
Email: danrusso@unina.it

## **LATVIA**

Dr. Gunārs Pētersons  
Latvia University of Agriculture  
Faculty of Veterinary Medicine  
K Helmana Street 8  
3004 Jelgava  
Tel: +371 630 24662  
Fax: +371 630 27344  
Email: gunars.petersons@llu.lv

## **LUXEMBOURG**

Mr. Jacques Pir  
Musée national d'histoire naturelle  
rue Münster 25  
2160 Luxembourg  
Tel: +352 263 140 450; +352 462 2331  
Fax: +352 263 140 200; +352 475 152;  
Email: jacques.pir@education.lu

## **MACEDONIA, FYR**

Prof. Branko Micevski  
Bat Study Group Macedonia  
Blvd. Febr. Pohod 24/47  
1000 Skopje  
Tel: +389 22 400 276  
Mob: +389 71 338 254  
Fax: +389 22 435 544  
Email: brankom@ukim.edu.mk

## **MOLDOVA**

Mr. Serghei Andreev  
WiSDOM  
PO Box 409  
2004 Chişinău  
Tel: +373 22 386 280  
Mob: +373 6976 9744  
Email: sergiu.andreeff@gmail.com

## **MONTENEGRO**

Ms. Marina Radonjić  
Public Enterprise for National Parks  
of Montenegro  
Trg Vojvode Bećir-bega Osmanagića 16  
81000 Podgorica  
Tel: +382 20 601 015  
Mob: +382 69 459 925  
Fax: +382 20 601 016  
Email: marinadjurovic@nparkovi.me;  
npcg@nparkovi.me

## **THE NETHERLANDS**

Ms. Willemina Remmelts  
Ministry of Economic Affairs  
P.O. Box 20401  
2500 EK Den Haag  
Tel: +31 70 378 49 07  
Email: w.j.remmelts@minez.nl



Mr. Peter H. C. Lina  
Naturalis Biodiversity Center (NBC)  
P.O. Box 9517  
2300 RA Leiden  
Tel: +31 71 531 4979  
Mob: +31 6 5351 6942  
Email: phclina@telfort.nl;  
peter.lina@naturalis.nl

### **NORWAY**

Mr. Per Ole Syvertsen  
Norwegian Zoological Society (NZF)/  
Norwegian Environment Agency  
NZF, c/o Per Ole Syvertsen  
Langmoheia 9D  
8626 Mo i Rana  
Tel: +47 751 101 42  
Mob: +47 905 131 20  
Email: pos@helgelandmuseum.no

### **POLAND**

Dr. Janusz Hejduk  
University of Lodz  
Department of Bioeducation and  
Biodiversity Studies  
Str. Banacha 1/3  
93-208 Lodz, Poland  
Mob: +48 601378275  
Email: januszh@biol.uni.lodz.pl  
tadarida@wp.pl

### **PORTUGAL**

Dr. Luísa Rodrigues  
Institute for the Conservation of Nature and  
Forests, ICNF  
Avenida da República 16 - 16B  
1050-191 Lisbon  
Tel: +351 213 507 900 (ext. 51433)  
Mob: +351 964 112 334  
Fax: +351 213 507 984  
Email: luisa.rodrigues@icnf.pt;  
rodriguesl100@gmail.com

### **SAN MARINO**

Dr. Dino Scaravelli  
Centro Naturalistico Sammarinese  
Via Valdes de Carli 21  
47893 Borgo Maggiore  
Tel: +39 0543 092 826  
Mob: +39 338 609 6094  
Fax: +39 0543 1791172  
Email: dinosc@tin.it

### **SWEDEN**

Ms. Marie Nedinge  
Swedish Environmental Protection Agency  
10648 Stockholm  
Tel: +46 10 698 1272  
Mob: +46 76 115 1780  
Email: marie.nedinge@  
naturvardsverket.se

### **SWITZERLAND**

Dr. Hubert Krättli  
Bat Foundation Switzerland  
Projektleitung KOF  
c/o Zoo Zürich  
Zürichbergstrasse 221  
8044 Zurich  
Tel: +41 44 254 2680  
Fax: +41 44 254 2681  
Email: hubert.kraettli@zoo.ch

### **UKRAINE**

Dr. Lena Godlevska  
NAS of Ukraine  
Schmalhausen Institute of Zoology  
Bohdan Khmelnytsky Str. 15  
01601 Kiev 30  
Tel: +380 44 235 1070  
Fax: +380 44 234 1569  
Email: lgodlevska@gmail.com

### **UNITED KINGDOM**

Ms. Jean Matthews  
Natural Resources Wales  
Maes y Ffynnon, Penrhosgarnedd  
Bangor  
Gwynedd LL57 2DW, Wales  
Tel: +44 1248 387 263;  
+44 3000 654846  
Mob: +44 7717 512 692  
Email: jean.matthews@  
cyfoethnaturiolcymru.gov.uk

## **NON-PARTY RANGE STATES**

### **ARMENIA**

Ms. Astghik Ghazaryan  
Yerevan State University  
A. Manoogian 1  
0025 Yerevan  
Mob: +374 94 938 316  
Fax: +374 10 554 641  
Email: astghik.ghazaryan@ysu.am

### **AUSTRIA**

Dr. Friederike Spitzenberger  
BatLife Österreich  
c/o Natural History Museum Vienna  
Säugetiersammlung  
Burgring 7  
1010 Vienna  
Tel: +43 664 653 5517  
Email: office@batlife.at

### **AZERBAIJAN**

Dr. Nijat Hasanov  
Azerbaijan National Academy of Sciences  
Institute of Zoology  
Block 504, Passage 1128  
A. Abbasov Str.  
1014 Baku  
Tel: +994 12 539 7371  
Mob: +994 55 425 0448  
Email: hasan0@bp.com;  
hasnijat@yahoo.com

### **BELARUS**

Mr. Aliaksei Shpak  
State Scientific and Production  
Amalgamation  
"Scientific and Practical Center for  
Bioresources" of the National Academy of  
Sciences of Belarus  
Akademicheskaya Str. 27  
220072 Minsk  
Tel: +375 29 284 2353  
Mob: +375 29 213 9257  
Fax: +375 29 284 1593  
Email: shpak.dvergr@gmail.com

### **BOSNIA AND HERZEGOVINA**

Dr. Jasminko Mulaomerović  
Center for Karst and Speleology  
Branilaca Sarajeva 30  
71000 Sarajevo  
Tel: +387 33 256 452  
Mob: +387 61 491 053  
Fax: +387 33 663 835  
Email: jasminko.mulaomerovic@  
bhtelecom.ba

### **GREECE**

Dr. Panagiotis Georgiakakis  
Natural History Museum of Crete  
Knossos Ave., P.O. Box 2208  
71409 Heraklion, Crete  
Tel: +30 2810 393 270  
Fax: +30 2810 324 366  
Email: pangeos@nhmc.uoc.gr

### **JORDAN**

Prof. Zuhair Amr  
Jordan University of Science &  
Technology  
Department of Biology  
P.O. Box 3030  
Irbid  
Tel: +962 65 333 956  
Mob: +962 795 545 281  
Fax: +962 27 201071  
Email: amrz@just.edu.jo

### **KAZAKHSTAN**

Mr. Anatoliy Taran  
Western-Altay State Natural Reserve  
Semipalatinskaya 9  
Ridder, VKO  
Tel: +7 72336 44334  
Mob: +7 705 501 4453  
Email: tarantolja@gmail.com

## **LEBANON**

Dr. Mounir Abi-Said  
Lebanese University  
Department of Life and Earth Sciences  
Faculty of Sciences II  
P.O. Box 90656  
Jdeideh, Fanar  
Tel: +961 5558 724  
Fax: +961 5555 201  
Mob: +961 3667 355  
Email: mabisaid9@gmail.com

## **MOROCCO**

Prof. El Ayachi Sehhar  
Institut Agronomique et Vétérinaire  
Hassa II  
B.P 6202-Instituts  
10101 Rabat  
Tel: +212 537 77 1745; -1758; -9;  
+212 537 77 0792  
Fax: +537 77 8135; -5838  
Mob: +212 661 491 923  
Email: sehhar\_elayachi@yahoo.fr;  
dg@iav.ac.ma

## **SAUDI ARABIA**

Dr. Abdulaziz Alagaili  
King Saud University  
College of Science, Zoology Department  
P.O. Box 2455  
11451 Riyadh  
Tel: +966 11 4670 352;  
Fax: +966 11 4678 514  
Mob: +966 557 303 303;  
Email: aziz99@gmail.com

## **SERBIA**

Mr. Branko Karapandža  
Wildlife Conservation Society "Mustela"  
Njegoševa 51  
11000 Belgrade  
Tel: +381 11 3442 149  
Fax: +381 11 3446 580  
Mob: +381 64 3499 216  
Email: branko.karapandza@gmail.com

## **TUNISIA**

Dr. Awatef Abiadh  
Association des Amis du Belvédère  
B.P. 349  
1002 Tunis Belvédère  
Tel: +216 71 890 386  
Mob: +216 2324 5082  
Email: abiadh955@gmail.com

## **TURKEY**

Mr. Emrah Çoraman  
Boğaziçi University  
Institute of Environmental Sciences  
Hisar Campus  
Bebek  
34342 Istanbul  
Tel: +90 212 359 7147  
Mob: +90 532 697 3838  
Fax: +90 212 257 5033  
Email: coramane@gmail.com

## **OBSERVERS**

### **CROATIA**

Ms. Mirna Mazija  
Freelance Consultant &  
Association for Bat Conservation Tragus  
Koledinecka 3  
10000 Zagreb  
Tel: +385 91 325 6320  
Email: mirna.mazija@gmail.com

### **ESTONIA**

Ms. Triinu Tõrv  
MTU Suurkõrv  
Liiva 37  
11615 Tallinn  
Mob: +372 56 666 398  
Email: tttriinu@gmail.com

### **FRANCE**

Ms. Marie-José Dubourg-Savage  
Société Française pour l' Etude et la  
Protection des Mammifères (SFPEM)  
c/o Les Rieux  
82140 St. Antonin-Noble-Val  
Tel: +33 563 682 147  
Fax: +33 563 682 147  
Mob: +33 673 925 171  
Email: chirosavage@gmail.com

## **GERMANY**

Dr. Christine Harbusch  
Naturschutzbund Deutschland (NABU)  
c/o Orscholzerstr. 15  
66706 Perl-Kesslingen  
Tel: +49 6865 939 34  
Fax: +49 6865 939 35  
Email: christine.harbusch@prochirop.de

Dr. Christian Voigt  
Leibniz Institute for Zoo and  
Wildlife Research (IZW)  
Alfred-Kowalke-Str. 17  
10315 Berlin  
Tel: +49 30 5168 517  
Fax: +49 30 5126 104  
Email: voigt@izw-berlin.de

Mr. Markus Melber  
Bundesverband für Fledermauskunde  
Deutschland e.V.  
c/o Stiftung FLEDERMAUS  
Kühnhäuser Straße 15  
99095 Erfurt  
Tel: +49 361 266 91 379  
Email: markus.melber@bvfledermaus.de

Mr. Marcus Fritze  
Bundesverband für Fledermauskunde  
Deutschland e.V.  
c/o Stiftung FLEDERMAUS  
Kühnhäuser Straße 15  
99095 Erfurt  
Tel: +49 30 5168 526  
Email: Marcus\_fritze@gmx.de

## **LUXEMBOURG**

Mr. Laurent Biraschi  
8 à la Croix St. Pierre  
4804 Rodange  
Tel: +352 5074 0940  
Email: laurent.biraschi@education.lu

## **NETHERLANDS**

Dr. Jasja Dekker  
BatLife Europe /  
c/o Bat Conservation Trust  
Quadrant House  
250 Kennington Lane  
London  
SE11 5RD  
Mob: +31 6 269 325 92  
Email: jasjad@gmail.com

Mr. Herman Limpens  
Dutch Mammal Society/  
Zoogdierverseniging  
Mercator III  
Toernooiveld 1  
6525 ED Nijmegen  
Tel: +31 24 741 0506  
Mob: +31 6 2073 6614  
Email: herman.limpens@zoogdierverseniging.nl

Mr. Marcel Schillemans  
Dutch Mammal Society/  
Zoogdierverseniging  
Mercator III  
Toernooiveld 1  
6525 ED Nijmegen  
Tel: +31 24 741 0507  
Email: marcel.schillemans@zoogdierverseniging.nl

Mr. Eric A. Jansen  
Dutch Mammal Society/  
Zoogdierverseniging  
Mercator III  
Toernooiveld 1  
6525 ED Nijmegen  
Tel: +31 24 741 0500  
mob: +31 6 260 825 45  
Email: eric.jansen@zoogdierverseniging.nl

Mr. Bob Jonge Poerink  
Fieldwork Company  
Stockholmstraat 2b  
9723 BC Groningen  
Tel: +31 508 200 485  
Fax: +31 507 503 472  
Email: bob@fieldworkcompany.nl

Mr. Niels de Zwart  
Bat Group Netherlands and  
Natural History Museum Rotterdam  
Westzeedijk 345  
3015 AA Rotterdam  
Tel: +31 10 266 0470  
Email: dezwarde@  
hetnatuurhistorisch.nl

### **POLAND**

Dr. Andrzej Kepel  
PTOP "Salamandra"  
(The Polish Society for Nature  
Conservation "Salamandra")  
ul. Stolarska 7/3  
60-788 Poznań  
Tel/Fax: +48 61 843 2160  
Email: andrzej@salamandra.org.pl

### **SPAIN**

Dr. Javier Juste  
SECEMU /Spanish Bat Conservation  
Association  
Estacion Biologica de Doñana  
(EBD-CSIC)  
Avda Américo Vespucio s/n  
41092 Seville  
Tel: +34 95 4232 340;  
Fax: +34 95 4621 125  
Email: juste@ebd.csic.es

### **UNITED KINGDOM**

Mr. Anthony Hutson  
IUCN/ SSC Bat Specialist Group  
c/o Winkfield  
Station Road  
Plumpton Green, East Sussex  
BN7 3BU  
Tel/Fax: +44 1273 890 341  
Email: hutson.t@btinternet.com

Dr. Anthony Mitchell-Jones  
Senior Advisor  
Taigh a' Ghiuthais  
North Connel  
Oban  
PA37 1QX, Scotland  
Tel: +44 1631 710 559  
Mob: +44 7788 497 796  
Email: tony@jantony.co.uk

Prof. Paul Adrian Racey  
University of Exeter and  
IUCN Bat Specialist Group  
c/o Chapel Cottage, Prazegooth Lane  
Cadgwith, Helston  
Cornwall  
TR12 7LA

Tel: +44 1326 291 255  
Email: p.racey@abdn.ac.uk

Dr. Henry Schofield  
The Vincent Wildlife Trust  
Railsgate Barn  
Kinnerton, Presteigne  
Powys, LD8 2PD, Wales  
Tel: +44 1547 560 407  
Mob: +44 7766 153 375  
Email: henryschofield@vwt.org.uk

Ms. Kit Stoner  
Bat Conservation Trust  
Quadrant House  
250 Kennington Lane  
London SE11 5RD  
Tel: +44 20 7820 7171  
Fax: +44 20 7820 7198  
Email: kstoner@bats.org.uk

Dr. Stacey Waring  
University of Reading  
TSBE Centre, JJ Thompson Building  
Whiteknights Campus  
RG6 6AF Reading  
Mob: +44 795 6400 416  
Email: s.d.waring@reading.ac.uk

### **EUROBATS Secretariat**

Mr. Andreas Streit  
Dr. Suren Gazaryan  
Ms. Tine Meyer-Cords  
Ms. Ana Thiel

UNEP/EUROBATS Secretariat  
United Nations Campus  
Platz der Vereinten Nationen 1  
53113 Bonn, Germany

Tel: +49 228 815 2420 / 33 / 31 / 32  
Fax: +49 228 815 2445  
Email: eurobats@eurobats.org

## **Attendance at the IWGs' meetings during the AC meeting in Zandvoort**

### **Bat Conservation and Sustainable Forest Management**

Anthony Mitchell-Jones\*, Jean Matthews, Serghei Andreev, Emrah Çoraman, Aurora Dibra, Marina Radonjić, Lena Godlevska, Nijat Hasanov, Helena Jahelková, Eeva-Maria Kyheröinen, Branko Micevski, Ioseb Natradze, Ruth Petermann, Jacques Pir, Danilo Russo, El Ayachi Sehhar, Per Ole Syvertsen, Christine Harbusch, Janusz Hajduk, Ferdia Marnell, Paul Racey, Gunārs Pētersons, Hubert Krättli, Astghik Ghazaryan, Friederike Spitzenberger, Mirna Mazija, Luisa Rodrigues, Panagiotis Georgiakakis, Branko Karapandža, Marie-Jo Dubourg-Savage, Markus Melber, Marcus Fritze, Bob Jonge Poerink, Eric Jansen, Marcel Schillemans, Jasja Dekker, Javier Juste, Peter Twisk.

### **Bat Rescue and Rehabilitation**

Helena Jahelková\*, Lena Godlevska\*, Marie-Jo Dubourg-Savage, Andrzej Kepel, Peter Lina, Luisa Rodrigues, Kit Stoner, Niels de Zwarte.

### **Format of National Implementation Reports**

Stéphane Aulagnier\*, Anthony Mitchell-Jones, Christian Voigt, Marie Nedinge, Noam Leader, Herman Limpens, Ruth Petermann, Luisa Rodrigues, Ioseb Natradze, Danilo Russo, Gunārs Pētersons, Panagiotis Georgiakakis, Ferdia Marnell, Aurora Dibra.

### **Overground Roosts**

Stéphane Aulagnier\*, Anthony Mitchell-Jones, Christian Voigt, Eric Jansen, Marie Nedinge, Noam Leader, Herman Limpens, Ruth Petermann, Ioseb Natradze, Danilo Russo, Gunārs Pētersons, Panagiotis Georgiakakis, Ferdia Marnell.

### **Monitoring and Indicators**

Jasja Dekker\*, Javier Juste, Eeva-Maria Kyheröinen, Helena Jahelková, Aurora Dibra, Marie-Jo Dubourg-Savage, Paul Racey, Janusz Hejduk, Per Ole Syvertsen, Marina Radonjić, Branko Micevski, Jacques Pir, Gunārs Pētersons, Noam Leader, Nijat Hasanov, Anatoliy Taran, Friederike Spitzenberger, El Ayachi Sehhar, Lena Godlevska, Hubert Krättli, Dino Scaravelli, Emrah Çoraman, Mirna Mazija, Branko

Karapandža, Mounir Abi-Said, Zuhair Amr, Marcel Schillemans, Herman Limpens, Markus Melber, Marcus Fritze, Christian Voigt, Anthony Hutson, Niels de Zwarte, Bob Jonge Poerink, Triinu Tõrv, Kit Stoner, Eric Jansen.

### **Bats, Insulation and Lining Materials**

Helena Jahelková \*, Jasja Dekker, Aurora Dibra, Marie-Jo Dubourg-Savage, Lena Godlevska, Christine Harbusch, Nijat Hasanov, Branko Karapandža, Hubert Krättli, Peter Lina, Jean Matthews, Anthony Mitchell-Jones, Dino Scaravelli, Marcel Schillemans, Aliaksei Shpak, Elena Stoeva, Kit Stoner, Triinu Tõrv, Stacey Waring, Niels de Zwarte.

### **Impact of Roads and Other Traffic Infrastructures on Bats**

Jean Matthews\*, Branko Karapandža\*, Primož Presetnik\* (absent), Emrah Çoraman, Marina Radonjić, Helena Jahelková, Eeva-Maria Kyheröinen, Anthony Mitchell-Jones, Ioseb Natradze, Per Ole Syvertsen, Aurora Dibra, Markus Melber, Astghik Ghazaryan, Andrzej Kepel, Marcel Schillemans, Hubert Krättli, Awatef Abiadh, Laurent Biraschi, Peter Lina, Jacques Pir, Luisa Rodrigues.

### **Communication, Bat Conservation and Public Health**

Convened by Paul Racey in a plenary room, list of attendees is not available.

### **Monitoring of Daily and Seasonal Movements on Bats**

Dino Scaravelli\*, Aurora Dibra, Lena Godlevska, Nijat Hasanov, Elena Stoeva, Danilo Russo, Eric Jansen, Jacques Pir, Bob Jonge Poerink, Anthony Hutson, Jasminko Mulaomerović, Javier Juste, Stéphane Aulagnier, Peter Lina, Anatoliy Taran, Awatef Abiadh, Astghik Ghazaryan, Janusz Hejduk, Marcus Fritze.

### **Purpose-built Man-Made Roosts**

Henry Schofield\*, Abdulaziz Alagaili, Stéphane Aulagnier, Marie-Jo Dubourg-Savage, Panagiotis Georgiakakis, Christine Harbusch, Anthony Hutson, Eric Jansen, Branko Karapandža, Andrzej Kepel, Peter Lina, Ferdia Marnell, Jean Matthews, Branko Micevski, Jasminko Mulaomerović, Luisa Rodrigues, Danilo Russo, Aliaksei Shpak, Elena Stoeva.

## **Wind Turbines and Bat Populations**

Present at the meeting: Luisa Rodrigues\*, Abdulaziz Alagaili, Aliaksei Shpak, Andrzej Kepel, Branko Karapandža, Branko Micevski, Christian Voigt, Christine Harbusch, Dino Scaravelli, Eeva-Maria Kyheröinen, El Ayachi Sehhar, Emrah Çoraman, Gunārs Pētersons, Helena Jahelková, Herman Limpens, Hubert Krättli, Jacques Pir, Jasja Dekker, Jean Matthews, Laurent Biraschi, Marcel Schillemans, Markus Melber, Marie Nedinge, Marie-Jo Dubourg-Savage, Mirna Mazija, Niels de Zwarte, Noam Leader, Per Ole Syvertsen, Ruth Petermann, Triinu Tõrv, Zuhair Amr.

*Absent members:* Anna Nele Herdina (Austria), Daniela Hamidović (Croatia), Dina Rnjak (Croatia), Fiona Matthews (UK), Jan Collins (BCT, UK), Joana Bernardino (Portugal), Johanna Hurst (Frieburger Institut, Germany), Katherine Walsh (UK), Kirsty Park (Stirling University, UK), Lothar Bach (Germany), Petra Bach (Germany), Rita Bastos (CITAB/UTAD, Portugal), Robert Raynor (UK), Thierry Kervyn (Belgium), Wael Elsheikh (Egypt), Laurent Schley (Luxembourg), Pascal Moeschler (Switzerland).

## **Bats and light pollution**

Christian Voigt\*, Laurent Biraschi, Aurora Dibra, Marie-Jo Dubourg-Savage, Marina Radonjić, Nijat Hasanov, Noam Leader, Jacques Pir, Danilo Russo, Henry Schofield, Kit Stoner, Paul Racey, Herman Limpens, Ruth Petermann, Gunārs Pētersons, Branko Micevski, Lena Godlevska, Janusz Hejduk, Triinu Tõrv, Marie Nedinge, Anthony Hutson, Friederike Spitzenberger, Zuhair Amr, Anatoliy Taran, Mounir Abi-Said, El Ayachi Sehhar, Abdulaziz Alagaili, Christine Harbusch, Marcus Fritze, Niels de Zwarte, Bob Jonge Poerink, Jasminko Mulaomerović, Ferdia Marnell, Laurent Biraschi, Javier Juste.

## **Quality of Assessments and Experience and Skills of Experts**

Ruth Petermann\*, Danilo Russo\*, Emrah Çoraman, Eeva-Maria Kyheröinen, Branko Micevski, Ioseb Natradze, Marie Nedinge, Luisa Rodrigues, Paul Racey, Dino Scaravelli, Aliaksei Shpak, Kit Stoner, Marina Radonjić, Serghei Andreev, Jacques Pir, Gunārs Pētersons, Noam Leader, Jasminko Mulaomerović, Laurent Biraschi, Javier Juste, Mirna Mazija, Christian Voigt, Panagiotis Georgiakakis, Herman Limpens, Markus Melber, Marcus Fritze, Anthony Hutson, Andrzej Kepel, Astghik Ghazaryan, El Ayachi Sehhar, Henry Schofield, Awatef Abiadh, Zuhair Amr.



## **Conservation and Management of Critical Feeding Areas, Core Areas Around Colonies and Commuting Routes**

Eeva-Maria Kyheröinen\*, Ioseb Natradze, Jasja Dekker, Ruth Petermann, Noam Leader, Gunārs Pētersons, Jacques Pir, Marina Radonjić, Per Ole Syvertsen, Janusz Hejduk, Dino Scaravelli, Hubert Krättli, Astghik Ghazaryan, Panagiotis Georgiakakis, Zuhair Amr, Stéphane Aulagnier, El Ayachi Sehhar, Branko Karapandža, Emrah Çoraman, Mirna Mazija, Triinu Tõrv, Christian Voigt, Marcus Fritze, Eric A. Jansen, Herman Limpens, Marcel Schillemans, Bob Jonge Poerink, Paul Racey, Anthony Hutson, Henry Schofield, . Anthony Mitchell-Jones.

## **Education**

Triinu Tõrv\*, Dino Scaravelli, Herman Limpens, Laurent Biraschi, Jasminko Mulaomerović, Anatoly Taran, Mounir Abi-Said, Niels de Zwarte, Awatef Abiadh

Not present, but in the e-mail list: Hossein Zohoori, Neeltje Huizenga, Kit Stoner, Jana Pokrievková, Lena Godlevska, Jacques Pir, Paul Racey, Serghei Andreev, Nijat Hasanov, Wael Elsheikh , Peter Lina, Zihad Bouslama.