SEMI-ANNUAL REPORT

COMMUNITY DRIVEN BAT CONSERVATION IN WESTERN RUSSIA,

WESTERN RUSSIA (BRYANSK, OREL AND KALUGA REGIONS), RUSSIA

AUGUST, 2011

Organization: *Grassroots Alliance PERESVET*

Project coordinator: *Dr. Igor Prokofyev*

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1. Summary of project

We aim to ensure sustainable conservation of bats and their habitats in Western Russia through the involvement of local communities by increasing an established network of volunteers to raise the profile of bat conservation and expanding **iBatsRussia**, a long term bat monitoring and bioindicator program we established in 2009 to evaluate the effect of land use change on bat populations, establishing **Bat Conservation Russia**, a charitable organisation dedicated to promoting awareness about bats and monitoring bat populations and establishing the **Bat Conservation Centre**, an organisation dedicated to bat research.

2. Goals and Objectives of the project

2.1. Goal

To generate long-term data on biodiversity indicator species to assess the impact of national development and global change.

2.2. Specific Objectives

The survey sought to achieve the following objectives:

Objective 1 – Determine the distribution, habitat preferences and population trends of bats in Russia

There are forty-one species of bat in Russia of which seventeen are threatened or near threatened. However, our understanding of the distribution of bats in Russia and their habitats remains extremely limited. In Russia, many species of bat are in decline with the main threats to populations being the loss of habitats and the disturbance of roost sites. Russia has some of the richest farming areas in the world but is beginning to experience significant land use change, with community farms abandoned and a move towards agricultural intensification. In addition, an increased infrastructure development linked to the rate of Russia's economic development is also resulting in a rapid increase in habitat loss. It is crucial therefore that biodiversity monitoring programmes are established and maintained to evaluate the effect of these changes.

Objective 2 - *Increase awareness among the general public on the ecological importance of bats and the need to protect them*

Bats are often misunderstood by the general public in Russia who fear them or view them as pests. Fundamental to conservation is to change the attitude of the general public towards bats. We altered the public perception of bats through a series of training, publicity and public events and establishing an education program within schools. It is expected that the publicity campaign will dramatically improve the public perception of bats and as a consequence have a long and lasting positive effect on their conservation. We created a Bat Conservation Center (BCC) to provide a centre for improving public awareness and perceptions about bats.

3. Bat Monitoring

3.1. Study site

The project area includes 3 regions of Western Russia: Bryansk, Orel and Kaluga. From north to south the project site is clad sequentially in coniferous forest (taiga), mixed and broad-leaf forests and grassland.

3.2. Survey Methods and Data Collection

The evening surveys were carried out 30-45 minutes after sunset from the start of May and would be end in September. We had done to survey 25 car transect of approximately 40km in length. Transects was surveyed in July will be repeated in August to provide baseline monitoring data.

The surveys took place from a moving vehicle driven at 25 km/hr for one and a half hours, covering up to 40km if single carriageway roads per night. The bat acoustic call recordings were collected by attaching a time expansion bat detector to the window of a car. We used a GPS to gather accurate geo-referenced records and identified the routes driven.

To facilitate analysis, the 1-2 hour .wav files were uploaded onto the iBats website(www.ibats.org.uk). Using 'soundgrab' it is then split up into manageable 5 minute chunks that were downloaded for analysis. Calls will be analysed using BatSound v3.31 (Pettersson Elektronik AB, Sweden).

The criteria taken into account were:

1) Snapshot start time (ms);

2) Number of social calls;

3) Echolocation calls:

- Echolocation call start time;
- Call shape;
- Call duration (ms);

- Minimum and Maximum Frequency (kHz);
- Peak Frequency (kHz).

3.3. Summary Of Progress:

Our project is very successful in achievement goal and objectives. This project allowed as to get new information about bat distribution. It is very important for our future project activity and bat conservation.

Alexander Gorbachev was trained in new methods of data analysis during the Internship at the Institute of Zoology, Zoological Society of London, the UK (March-April 2011). It increased our possibilities in data analyses. With help of Alexander we will finish data analyses in winter time.

During the first 6 month of the study period we collected data from 25 car transects and got the recordings from 30 hours of recordings. 11 species known to occur in the region were recorded on these data:

1. Greater noctule (*Nyctalus lasiopterus* Schreber, 1780);
2. Noctule (*Nyctalus noctula* Schreber, 1774);
3. Common pipistrelle (*Pipistrellus pipistrellus* Schreber, 1774);
4. Soprano pipistrelle (*Pipistrellus pygmaeus* Leach, 1825);
5. Parti-coloured bat (*Vespertilio murinus* L., 1758);
6. Northern bat (*Eptesicus nilssoni* Keyserling and Blasius, 1839);
7. Serotine (*Eptesicus serotinus* Schreber, 1774);
8. Brown long-eared bat (*Plecotus auritus* Linnaeus, 1758)
9. Nathusius' pipistrelle (*Pipistrellus nathusii* Keyserling et Blasius, 1839)
10. Leisler's noctule (*Nyctalus leisleri* Kuhl, 1817)
11. Daubenton's bat (*Myotis daubentoni* Kuhl, 1817)

We got new data about bats distribution mentioned above. We got records about 1000 calls of bats and the same number of geo-reference data of bat's roots in 3 regions of Western Russia. At the end of the project these data will help us to identify site with high bats biodiversity level in 3 regions of Western Russia. At the base of the getting data we created echolocation calls library of bat species of Western Russia. It helps us to improve species identification methodology.

4. Involving Community

Representatives of local community are very active participants of our project. As volunteers they participate in transects organization and bats surveys. They give their cars for transects without payment.

For achievement objects of the project we will expand iBatsRussia monitoring programme to other regions of Western Russia. We organized a number of iBatsRussia talks throughout these regions prior to the survey season in order to generate interest and these were followed by a training workshop in bat ecology, monitoring equipment and methodology. We attracted local communities, NGOs, scientists, farmers and other stakeholders into bats monitoring. For volunteers who organized and carried out monitoring we organized trainings and workshops in different regions of Western Russia.

March – April 2011 *Talks within the regions in Western Russia (3)*

May 2011 *Training workshop*

HRH The Princess Royal (Princess Anne) tonight presented one of the world's top prizes for grassroots nature conservation – a Whitley Award – to **Dr Igor Prokofyev**, of **Western Russia**, for his work to research and protect Russia's internationally-important populations of bats and ensure that people can continue to benefit from the free services bats supply, as pollinators and insect controllers.

5. Bat Education Activity

For organization and carry out an education activity we created bat education center. Stuff of this center is volunteers. They develop education materials, posters, leaflets and booklets. We got a great help from our partner organization – The Bat Conservation Trust (the UK). BCT granted us profession photo pictures of bats and some education materials. We translated these materials and made some adaptation for Russia. We so grateful for BCT, because it's so difficult to get professional beautiful photo pictures of bats. We distribute education materials among schools, NGOs and local communities of Western Russia for free.

We raised the profile of bats by organizing 8 separate events to raise awareness about bats (e.g. lectures, bat walks). In addition, we developed and published education materials for use in schools.

March – May 2011 *Preparation and publication of leaflets (1000), posters (200) and banners (10) for information campaign plus school education materials*

March – July 2011 *Information campaign on biodiversity conservation and implementation of school education programme*

More than 1000 people took part in our activity (transects, education events, trainings, workshops and getting education materials).

6. Conclusion

1. We got information about distribution of 11 bat species in 3 regions of Western Russia.
2. We got records about 1000 calls of bats and the same number of geo-reference data of bat's roots in 3 regions of Western Russia.
3. More than 1000 people took part in our activity (teachers, NGOs, students, schoolchildren, local communities).
4. The first bat education center was created in Western Russia.
5. All expenses were made to according to the approved budget.


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