

## FIRST EVIDENCE ON BAT MORTALITY AT WIND TURBINES IN LATVIA

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Wind energy is considered as one of the sustainable methods for generating power. As many governments consider the renewable wind energy as one of the solutions to minimize the global climate change and reduce environmental pollution, the number of wind turbines in Europe and North America has increased rapidly during the last decades. However, recent research in many countries show that wind turbines may cause problems to animals, especially birds and bats (Kunz *et al.* 2007, Rydell *et al.* 2010). Building of wind farms can have negative impact both on bat populations by direct killing of the animals by turbines as well as by loss of their habitats. Currently the development of wind turbine based power generation is considered to be the biggest threat to bat populations in Europe (Arnett *et al.* 2013, Rydell *et al.*, 2013).

The growing number of wind turbines and planning of new wind farms in recent years have become an actual reality also in Latvia. However no data on bat mortality at wind turbines in Latvia were available up to now. In August and September 2013, 6 turbines were searched repeatedly for bat carcasses in the western part of Latvia. The number of visits varied from five to 13 per turbine. Altogether we found 40 bat carcasses of five species at six turbines. The majority of bats belonged to two species – northern bat *Eptesicus nilssonii* Keyserling et Blasius (n=13) and Nathusius' pipistrelle *Pipistrellus nathusii* Keyserling et Blasius (n=25) thus representing mortality of both local and migratory species. The number of dead bats at some of the visited turbines may be considered as high compared to that in other countries indicating that both careful research of bats as well as strict regulations of the wind farm planning and turbine use are needed to reduce the wind farm impact on bat species in Latvia.

### References

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