

B-FINDER - automatic bats & birds mortality monitoring for wind power

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Summary

This paper presents breakthrough automation technology for wildlife post-construction monitoring based on sensors. B-finder technology enables automatic bats & birds fatality monitoring for onshore & offshore project. Results of first months of prototype tests are presented.

1. Post-construction bats & birds collision monitoring for offshore projects

Post-construction fatality monitoring methods are based on searching on the ground. Offshore projects need alternative methods of monitoring. Environmental specialists [1-3] are calling for technical innovation in this area.

B-finder system enables the wind industry to monitor the collisions in real time, like they are. Every single bat or bird fatality case can be on-line reported. The automation based on sensors enables transparent monitoring, justice for every single wind tower. B-finder is on-shore and off-shore ready. B-finder system make the mortality monitoring efficient, comparable between project, transparent and easy.

2. Automation of monitoring

Post-construction mortality monitoring for offshore locations can be provide only as automated process. B-finder is developed in Europe and the 1-year long prototype-test will be finished in Nov-2018. First results show high potential of this system for post-construction mortality monitoring for onshore and offshore projects.



Fig. 1: B-finder unit: internal rack cabin and external sensors.

B-finder system characteristics:

- Automation

- 24/365 operation
- Direct data access and online reporting
- 92-100% efficiency of bats & birds fatality monitoring
- Global standard
- Onshore and offshore ready
- High quality data for operators, regulators and investors
- CSR tool
- Counting instead of temporary stopping
- No prediction, no uncertainties, just real data

The sensors technology enable detection of smallest European species in the range of 50-100m and the bigger species in the range >100m from the tower.

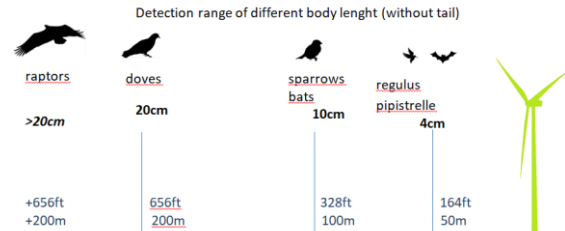


Fig. 2: B-finder range for different species.

Onshore model prototype is in the test phase and offshore model in development.

3. References

- [1] Rydell J., Engström H., Hedenström A., Larsen J.K., Pettersson J., Green P. 2012. Report 6511. The effect of wind power on birds and bats. SEPA.
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- [3] Pelletier, S.K., Omland K., Watrous K.S., Peterson T.S.. 2013. Information Synthesis on the Potential for Bat Interactions with Offshore Wind Facilities – Final Report. U.S. Dept of the Interior, Bureau of Ocean Energy Management, Headquarters, Herndon, VA. OCS Study BOEM 2013-01163. 119 pp.