PredictBird

RKR-PRO: BIRD CONSERVATION & WIND ENERGY IN HARMONY
Science Meets Practice

A project by BioConsult SH, Bionum & TB Raab
Funded by BMWE.IIB5

Methodical Approach:

1 3D space utilisation learned from tagged breeding birds in relation to land use

1 Match avoidance behaviour with operational data from windfarm

3 Publish calculation rules for implementation in German law

Results published in October 2025:

- RKR calculation rules updated for Red Kite
- Calculation rules for: White-tailed Eagle, White Stork, Black Kite, Honey Buzzard, Imperial Eagle

Outlook for Q4 2025 / Q1 2026:

- Initial analyses for: Hen Harrier, Montagu's Harrier and Marsh Harrier
- Implementation of the RKR method into the German Federal Nature Conservation Act with threshold values for collision risk
- Start RKR preparations for Black Stork, Golden Eagle, Lesser Spotted Eagle and Osprey.

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A joint venture between

TB Raab Technisches Büro für Biologie · Bio Consult SH GmbH & Co. KG · TNL Energie GmbH · BIONUM

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SMART PLANNING WITH THE RKR MODEL
Science Meets Practice

The RKR model combines state-of-the-art remote sensing (e.g. EU Copernicus program) with precise GPS tracking of birds to deliver standardized, transparent, and scientifically robust results on space use and collision risk at wind turbines.

How it works:

1 Upload your data to predictbird.de – breeding place locations, planned wind farm details, turbine locations and technical specifications.

2 Receive a preliminary report with results and an invitation for a video conference to discuss the findings.

3 After commissioning, you will receive the full report without watermark.

Your benefits:

Gain clarity on the potential collision risks of your wind energy project – before costly decisions are made.

START NOW
www.predictbird.de

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PREDICTABLE

The pilot study probabilistic (Mercker et al., 2023) proved that predicting collision risk for red kites at wind energy turbines is possible. Building on this success, the follow up study probabilistic (Mercker et al., 2024) now offers - for the first time - a robust, transparent tool that delivers project-specific results based on optimized data.

ACCURATE, TRANSPARENT, READY TO USE

Validated with real collision and telemetry records, the model not only produces consistent risk assessments, but also captures the unique conditions of each project with remarkable accuracy.

MORE SPECIES

Ongoing optimization of the database enables the inclusion of an increasing number of bird species in the modelling.

SMART PLANNING – ASSESSING YOUR PROJECT

With the **RKR model**, we provide a transparent and standardized calculation of the expected number of collisions per breeding bird and breeding season.

MODEL-BASED ASSESSMENT OF COLLISION-RELATED MORTALITY RISK FOR SELECTED WIND TURBINES

This allows us to give you an expert-based assessment of your project's feasibility – with an extended traffic light system that provides clear risk insights.

The predicted impact intensity is determined for each specific site and visually presented using a colour-coded system.

GAIN CLARITY & PLAN WITH *CONFIDENCE.*

Book free online appointment:

Questions? Send us e-mail:

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REPOWERING - YOUR REPOWERING PROJECT HAS LOWER IMPACTS THAN THE CURRENT INSTALLATION?

At the applicant's request, the § 16b procedure under the Federal Emission Control Act (German BImSchG) checks whether repowering – the replacement or major modification of an existing installation – would cause considerable adverse effects on protected assets compared to the current situation.

Only if such negative impacts are found, a full permit review under the German § 6 BImSchG will be required.

ASSESSING REPOWERING - DELTA ANALYSIS UNDER THE GERMAN § 16B BIMSCHG – EVALUATING REPOWERING PROJECTS

For repowering, a delta analysis compares the impacts of the existing installation with those of the planned project.

This comparison determines whether there is a significantly increased risk of killing – or confirms that no such increase exists.