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Reconstructing the fine-scale habitat structure of wetlands for animal ecology using remote sensing

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AUTHOR CONTRIBUTIONS

Z. Koma, A. Zlinszky, L. Bekő, P. Burai, A.C. Seijmonsbergen & W.D. Kissling (2021): Quantifying 3D vegetation structure in wetlands using differently measured airborne laser scanning data. *Ecological Indicators* 127: 107752.

- Conceptualization: ZK, AZ, ACS and WDK; methodology: ZK, AZ and WDK; data processing: ZK and LB; data curation: PB and AZ; analysis: ZK; writing initial draft: ZK; review and editing: WDK and ACS; supervision: WDK and ACS

Z. Koma, A.C. Seijmonsbergen, & W.D. Kissling (2021): Classifying wetland-related land cover types and habitats using fine-scale lidar metrics derived from country-wide Airborne Laser Scanning. *Remote Sensing in Ecology and Conservation* 7: 80–96.

- Conceptualization: ZK, AS and WDK; methodology: ZK and WDK; data processing: ZK; data curation: ZK; analysis: ZK; writing initial draft: ZK; review and editing: WDK and ACS; supervision: WDK and ACS

Z. Koma, M.W. Grootes, C. W. Meijer, F. Nattino, A.C. Seijmonsbergen, H. Sierdsema, R. Foppen & W.D. Kissling (2021): Niche separation of wetland birds revealed from airborne laser scanning. *Ecography* 44: 907–918.

- Conceptualization: ZK and WDK; methodology: ZK and WDK; data processing: MWG., CWM, FN and ZK; data curation: ZK, HS and RF; analysis: ZK; writing initial draft: ZK; review and editing: WDK, ACS, HS and RF; supervision: WDK and ACS

Z. Koma, A.C. Seijmonsbergen, M. W. Grootes, F. Nattino, J. Groot, H. Sierdsema, R. Foppen & W.D. Kissling: Better together? Assessing different remote sensing products for predicting habitat suitability of wetland birds (submitted to *Diversity and Distributions*)

- Conceptualization: ZK, ACS and WDK; methodology: ZK and WDK; data processing: ZK, MWG., FN and JG; data curation: ZK, HS and RF; analysis: ZK; writing initial draft: ZK; review and editing: WDK, ACS, HS and RF; supervision: WDK and ACS

FULL PUBLICATION LIST

Peer-Reviewed Articles

- de Vries, J. P. R., **Koma, Z.**, de Vries, M. W. & Kissling, W. D. (2021): Identifying fine-scale habitat preferences of threatened butterflies using country-wide airborne laser scanning data. *Diversity and Distributions* 27: 1251–1264.
- **Koma, Z.**, Zlinszky, A., Bekő, L., Burai, P., Seijmonsbergen, A. C. & Kissling, W. D. (2021): Quantifying 3D vegetation structure in wetlands using differently measured airborne laser scanning data. *Ecological Indicators* 127: 107752.
- **Koma, Z.**, Grootes, M. W., Meijer, C. W., Nattino, F., Seijmonsbergen, A. C., Sierdsema, H., Foppen, R. & Kissling, W. D. (2021): Niche separation of wetland birds revealed from fine-scale LiDAR metrics. *Ecography* 44: 907–918.
- **Koma, Z.**, Seijmonsbergen, A.C. & Kissling, W.D. (2021): Classifying wetland-related land cover types and habitats using fine-scale lidar metrics derived from country-wide Airborne Laser Scanning. *Remote Sensing in Ecology and Conservation* 7: 80–96.
- Meijer, C., Grootes, M.W., **Koma, Z.**, Dzigan, Y., Gonçalves, R., Andela, B., van den Oord, G., Rangelova, E., Renaud, N. & Kissling, W.D. (2020): Laserchicken - A tool for distributed feature calculation from massive LiDAR point cloud datasets. *SoftwareX* 12: 100626.
- Bakx, T.R.M., **Koma, Z.**, Seijmonsbergen, A.C. & Kissling, W.D. (2019): Use and categorization of light detection and ranging vegetation metrics in avian diversity and species distribution research. *Diversity and Distribution* 25, 1045–1059.
- Lucas, C., Bouten, W., **Koma, Z.**, Kissling, W.D. & Seijmonsbergen, A.C. (2019): Identification of linear vegetation elements in a rural landscape using LiDAR point clouds. *Remote Sensing* 11. <https://doi.org/10.3390/rs11030292>
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- Hämmerle, M., Lukač, N., Chen, K.-C., **Koma, Z.**, Wang, C.-K., Anders, K., Höfle, B. (2017): Simulating various terrestrial and uav

lidar scanning configurations for understory forest structure modelling. in: ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, IV-2/W4, 59–65, <https://doi.org/10.5194/isprs-annals-IV-2-W4-59-2017>

- Telbisz, T., Látos, T., Deák, M., Székely, B., **Koma, Z.** & Standovár, T. (2016): The advantage of lidar digital terrain models in doline morphometry compared to topographic map-based datasets - Aggtelek karst (Hungary) as an example. *Acta Carsologica* 45, 5–18. <https://doi.org/10.3986/ac.v45i1.4138>
- **Koma, Z.**, Koenig, K., Höfle, B. (2016): urban tree classification using full-waveform airborne laser scanning, in: ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, III-3. pp. 185–192. <https://doi.org/10.5194/isprs-annals-III-3-185-2016>
- Székely, B., **Koma, Z.**, Karátson, D., Dorninger, P., Wörner, G., Brandmeier, M., Nothegger, C., (2014): Automated recognition of quasi-planar ignimbrite sheets as paleosurfaces via robust segmentation of digital elevation models: an example from the Central Andes. *Earth Surface Processes and Landforms* 39, 1386–1399. <https://doi.org/10.1002/esp.3606>

Non-Peer-Reviewed Articles:

- **Koma, Z.**, Seijmonsbergen, A.C., Meijer, C., Bouten, W. & Kissling, W.D. (2018): Object based habitat mapping of reedbeds using country-wide airborne laser scanning point clouds. GEOBIA'2018, Montpellier, France.
- Roncat, A, Ghuffar, S, Székely, B, Dorninger, P, Rasztovits, S, Mittelberger, M, **Koma, Z.**, Krawczyk, D, Pfeifer, N. (2013): A natural laboratory — Terrestrial Laser Scanning and auxiliary measurements for studying an active landslide In: Proceedings of the 2nd Joint International Symposium on Deformation Monitoring. Place and date of conference: Nottingham, United Kingdom / England, 09/09/2013-10/09/2013. Nottingham: pp. &1-9.

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