

Curriculum Vitae

Name Dr. Jörg Melzheimer

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Education

2019 PhD, Freie University Berlin, Germany
2004 Diploma (equiv. to MSc) in Biology, University of Potsdam, Germany
1998-2004 Academic studies of Ecology, Evolution and Nature Conservation at the Universities of Potsdam (Germany), Santa Catarina (Brasil) and Witwatersrand (South Africa)

Research Experience

Since 2024 senior scientist at the Leibniz-IZW, Berlin
2005 - 2023 doctoral and postdoctoral Researcher at the Leibniz-IZW, Berlin

Funding

total of 8.338.000€ as PI or Co-PI

2025 – 2026 1.700.000€ GAIA MISSION Mission to Develop and Integrate Smart animal tags and Satellites into Intelligent Observational Networks

2024 – 2027 1.200.000€: Scavengers on Patrol - fighting poaching by combining animal and artificial intelligence

2024 30.000€ Deutsch-Chilenischer Austausch zu Künstlicher Intelligenz in der Biodiversitätsforschung

2024 45.000€: understanding poisoning risk for vultures by Ministry for Environment, Forestry and Tourism of Namibia

2022 - 2024 2.600.000€: Guardian of the wild using AI-Applications funded by BMWK

2022 - 2024 481.000€: Synergie Natürlicher und Künstlicher Intelligenz funded by BMWK

2022 - 2024 220.000€: „Entwicklung eines modularen und KI-basierten Automaten für artspezifische Verabreichung tiermedizinischer Präparate zur Immunisierung und pharmakologischen Fertilitätskontrolle heimischer Wildtiere“ by BMWK

2022 -2024 130.000€ understanding intraspecific communication using high-tech tracking tools and artificial intelligence by Tierpark Berlin

2020 -2024 120.000€ Upscaling knowledge transfer across cheetah range countries to solve cheetah-human-conflict by WWF GER

2020 - 2021 100.000€ Internet of Life – using high-tech and artificial intelligence for conservation by BMWK

2015 - 2020 1.550.000€ Spatial ecology of free-ranging cheetahs and it applications to mitigate the farmer-cheetah conflict in Namibia funded by Messerli Foundation

2015 - 2017 162.000€: Development of a selective box trap based on a species-specific and dynamic image recognition system with wireless data download, funded by BMWK

Professional Activities and Memberships

Since 2025 Member of the IUCN/SSC Vulture Specialist Group
Since 2021 Member of the German Society for Aeronautics and Astronautics

Since 2021 Member of the IUCN/SSC Cat Specialist Group
 Since 2013 National Adviser to EU for humane trapping standards for animals
 Since 2006 Member of the Namibian Environment and Wildlife Society
 Since 2006 Member of the Large Carnivore Management Association of Namibia

Patents total of seven patent registrations

Aktenzeichen	Date	Status	Title
10 2015 116 050.1	23.09.2015	erteilt	Falleneinrichtung und Verfahren zum Betrieb derselben
102019129210.7	29.10.2019	erteilt	Vorrichtung zur wildtierbio-logischen Erforschung von Tieren
102020121967.9	21.08.2020	erteilt	Sensorvorrichtung und Verfahren zum Erfassen und Beeinflussen einer Verhaltensweise eines Wildtieres
102021114401.9	03.06.2021	offengelegt	Automatische Probenentnahmestation für genetische Untersuchungen
102021122255.9	27.08.2021	offengelegt	Automatische Vorrichtung zur Verabreichung von Futter für Wildtiere
102023121479.9	10.08.2023	offengelegt	Vorrichtung zur elektronischen Tierüberwachung
102023125817.6	22.09.2023	angemeldet	Verfahren und Vorrichtung zur elektronischen Tierüberwachung

Ten key publications total of 59 papers, h-index 23, 1789 citations

Curk, T., Rast, W., Portas, R., Kohles, J., Shatumbu, G., Cloete, C., Curk, Ti., Radchuk, V., Aschenborn, O., & Melzheimer, J. (2024). Advantages and disadvantages of using social information for carcass detection—A case study using white-backed vultures. *Ecological Modelling*, 499, 110941. <https://doi.org/10.1016/j.ecolmodel.2024.110941>

Rast, W., Götz, T., Cloete, C., Berger, A., Chamailé-Jammes, S., Krofel, M., Portas, R., Aschenborn, O., & Melzheimer, J. (2026). Did U hear that? Working with mixed behaviours when classifying animal behaviour from acceleration data using a U-Net. *Ecological Informatics*, 95, 103761.

Curk, T., Santangeli, A., Rast, W., Portas, R., Shatumbu, G., Cloete, C., Beytell, P., Aschenborn, O., & Melzheimer, J. (2025). Using animal tracking for early detection of mass poisoning events. *Journal of Applied Ecology*, 62(9), 2202–2212.

Branch, D., Curk, T., Portas, R., Cloete, C., Melzheimer, J., Aschenborn, O., & Krofel, M. (2026). Does repeated darting of lions affect their habitat selection and tourist-viewing opportunities? *Global Ecology and Conservation*, 65, e04007.

Rast, W., Portas, R., Shatumbu, G. I., Berger, A., Cloete, C., Curk, T., Götz, T., Aschenborn, O., & Melzheimer, J. (2024). Death detector: Using vultures as sentinels to detect carcasses by combining bio-logging and machine learning. *Journal of Applied Ecology*, 00, 1–10. <https://doi.org/10.1111/1365-2664.14810>

Ingaleshwar, S. et al: Wildlife Species Classification on the Edge: A Deep Learning Perspective. 2024 In Proceedings of the 16th International Conference on Agents and Artificial Intelligence - Volume 3, pages 600-608 <https://doi.org/10.5220/0012376700003636>

Giese L. et al: Using Machine Learning for Remote Behaviour Classification—Verifying Acceleration Data to Infer Feeding Events in Free-Ranging Cheetahs. *Sensors*. 2021; 21(16):5426. <https://doi.org/10.3390/s21165426>

Melzheimer J. et al: (2020): Communication hubs of an asocial cat are the source of a human-carnivore conflict and key to its solution. *Proc. Natl. Acad. Sci. USA*. 2020

Melzheimer J. et al: Queuing, takeover and becoming a fat cat: Long-term data reveal two distinct male spatial tactics at different life-history stages in Namibian cheetahs. *Ecosphere* 06/2018; 2018(6), DOI:10.1002/ecs2.2308C.

Durant S. et al: The global decline of cheetah *Acinonyx jubatus* and what it means for conservation. *Proceedings of the National Academy of Sciences* 12/2016; 114(3); DOI:10.1073/pnas.1611122114

