



Contact



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msmielak.github.io

Skills

Experience in statistical analysis, data processing and visualisation (R)

GIS software (QGIS, ArcGIS)

Experience in open source hardware and software, building custom electronics and microcontroller programming

Award-winning photographer

Languages

English – proficient (academic)

Polish – mother tongue

French – advanced

Russian – basic

Other

Driving licence

UAV operating licence – VLOS in “open” and “specific” categories.

Interests

Photography, permaculture, woodworking

MICHAŁ ŚMIELAK

Education

- 2014- **PhD candidate**, University of New England, Armidale, New South Wales, Australia
Thesis: *The community ecology of threatened, critical-weight-range, terrestrial mammals in response to wild canid and feral cat control.*
- 2006-2012 **Master of Science**, Inter-Faculty Studies in Environmental Protection, major in Animal Ecology, University of Warsaw
Thesis: *Breeding avifauna of the small midfield ponds in Mazurian Lakeland.*

Relevant experience

- 09.2021- **Senior Ecologist - Jacobs Engineering Group**
Supporting UK teams with environmental expertise, data management, analysis and reporting skills. Major projects:
- Habitat monitoring and nitrogen deposition analysis, LTC, UK**
Client: Lower Thames Crossing
Title: Survey Validation Lead / AQ Data Analyst
Start/End Dates: March 2022 -
Scope: Supporting environmental teams with data management and analysis skills
Responsibilities: Creating a data collection framework for habitat monitoring and nitrogen deposition assessment; automated data collation for further analysis; Automated reporting of monitoring results.
- Habitat and species monitoring and automation, HS2, UK**
Client: High Speed 2 (HS2)
Title: Ecology Support on Automated Monitoring Task
Start/End Dates: September 2021 –
Scope: Creating an automated reporting system for long-term biodiversity monitoring
Responsibilities: Verifying monitoring criteria, and success attributes and preparing an automated reporting system for protected species and habitats.
- Flood defence and maintenance work, UK**
Client: Environment Agency
Title: Ecologist
Start/End Dates: September 2021 –
Scope: Assessing effects of proposed work on protected habitats and species
Responsibilities: Preparing Habitat Regulation Assessments and CRow assent for various proposed projects (flood bank repairs, rock revetment construction), including in protected areas.
- 04.2021-01.2022 **Project lead – Mammal Research Institute, Polish Academy of Sciences**
Polish Aid project “Building capacity for human-elephant coexistence in the Kilombero Valley, Tanzania through farmer-based mitigation, livelihoods, training, and technology.”
Designed and submitted a successful grant application for a Human-Wildlife Coexistence project, co-realised by MRI PAS and Tanzanian NGO partner Southern Tanzania Elephant Program. Coordinated and supervised all project activities, advised on experimental design for elephant deterrents and assisted in data management, training and education

05.2014-	<p>The community ecology of threatened, critical-weight-range, terrestrial mammals in response to wild canid and feral cat control (PhD project, University of New England, New South Wales, Australia)</p> <p>Trapping and handling animals, using GPS and VHF telemetry to measure spatio-temporal patterns of activity; extensive remote camera monitoring; experiments measuring non-direct effects of predation; using drones to collect hi-resolution habitat data; data analysis and modelling using R and QGIS.</p>
2014-2019	<p>Teacher at University of New England; Armidale, New South Wales, Australia</p> <p>Teaching “Wildlife monitoring”, “Telemetry”, “Using drones in conservation”, grading “Statistics 210”.</p>
2011-2014	<p>IPROEKO Sp. z o.o.; Biuro Ekspertyz Przyrodniczo-Leśnych (Environmental Expertise Agency)</p> <p>Contracted as an expert zoologist, designing, and conducting herpetological, mammalogical and ornithological surveys, providing data for environmental assessment schemes and writing reports.</p>
2013-2014	<p>Survey of carnivorous mammals in the Augustowska Primeval Forest. Part of the Life11 NAT/PL/428 project “Active conservation of Western capercaillie Tetrao urogallus in Lower Silesian Forest and Augustowska Privemal Forest”</p> <p>Project leader surveying 73300 ha of forests and ecotone habitat to estimate densities and activity patterns of large and medium-sized mammalian carnivores to inform best management and conservation practices for reintroduction of capercaillie. Designed and implemented monitoring protocols, supervised teams of 5-10 people, collated and managed data, engaged with stakeholders and land managers, analysed data, and prepared maps and final reports.</p>
2013-2014	<p>European pond turtle <i>Emys orbicularis</i> conservation project</p> <p>Lead researcher undertaking a project which consisted of several modules, including radiotelemetry and geospatial analysis of habitat use, locating nesting sites, collecting biometric data, etc. Responsible for field data collection, geospatial data analysis and preparing cartographical materials.</p>
2012	<p>Herpetological and mammal survey of the Vistula Spit</p> <p>Lead researcher responsible for designing and conducting a detailed and complex survey, consisting of various research methods, such as trapping, tracking and using trail cameras. Using GIS software to provide spatial data on species distribution and presenting the results in form of written report and maps.</p>
2011-2014	<p>Assistantships in research projects of Institute of Ecology</p> <p>Assistant researcher taking part in various surveys conducted by Institute crew. Field data collection, trapping and radio-tracking of different species and data processing. From 02.2012 worked as a graduate research assistant in original research on amphibian hibernation patterns.</p>
2011	<p>Milvus Group (Târgu Mureş, Romania), Internship in the project: LIFE08 NAT/RO/000501 Conservation of <i>Aquila pomarina</i></p> <p>Erasmus intern undertaking complex fieldwork (bird observation, habitat mapping), data collecting and analysis, basic GIS data processing, as well as other activities concerning various conservation issues in Transylvania.</p>
2010-2011	<p>Master thesis Breeding avifauna of the small midfield ponds in Mazurian Lakeland</p> <p>Designed and implemented surveys on 25 small midfield ponds in a post-agricultural landscape of Mazurian Lakeland. The study consisted of a 2-year census of breeding bird communities combined with detailed habitat mapping. Collected data was used to determine habitat preferences of different bird species and compared with corresponding data on larger habitat patches, such as lakes and wetlands. Various techniques were used to collect field data; GIS and statistical software were used for data processing.</p>

Scholarships and awards

2016, 2017	Holsworth Wildlife Research Endowment for PhD research project
2014-2018	Endeavour Postgraduate Research Scholarship funded by the Australian Government

Leadership, community experience and memberships

Student representative at the University Research Committee at the University of New England.

Mentor in the scientific student group of the Inter-Faculty Studies in Environmental Protection.

Member of the Australian Mammal Society, Ecological Society of Australia, and British Ecological Society