

PALAEOECOLOGY AND PEATLAND RESTORATION: UNDERSTANDING THE PRACTITIONERS' PERSPECTIVE

GAULD, J.¹ FLETCHER, W.¹ SHUTTLEWORTH, E.¹ RYAN, P.¹ LONGDEN, M.² WALKER, M.² DA SILVA, A.² FEENEY, K.³

¹ THE UNIVERSITY OF MANCHESTER; ² THE LANCASHIRE WILDLIFE TRUST; ³ CHESHIRE WILDLIFE TRUST

Contact: jessica.gauld@postgrad.manchester.ac.uk

1. PROJECT BACKGROUND AND OBJECTIVES

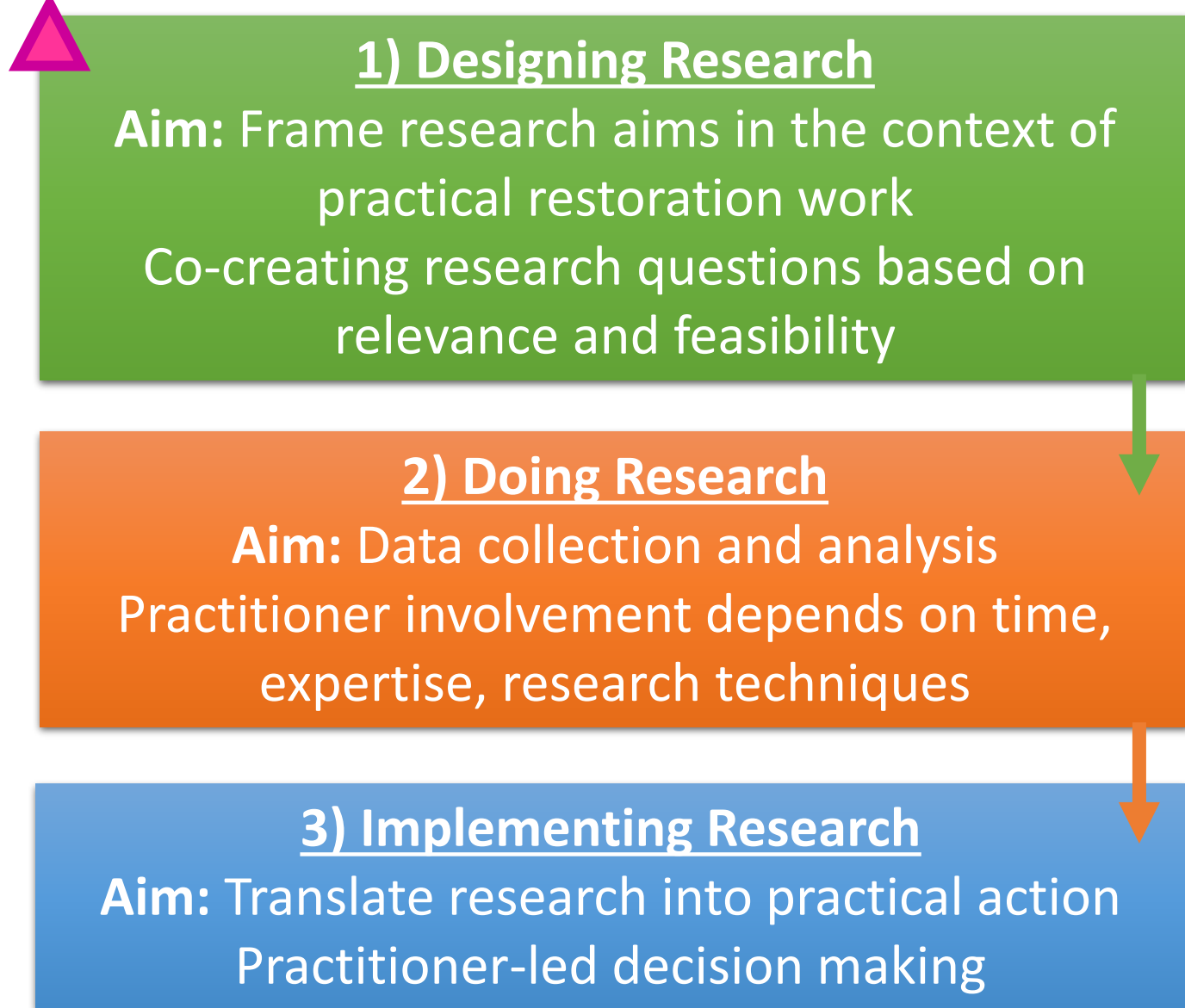


FIGURE 1: THREE MAIN PHASES OF PRACTITIONER ENGAGEMENT IN THE RESEARCH PROCESS (ADAPTED; [3])

The potential of palaeoecological research to inform practical ecosystem conservation is increasingly recognised in the literature yet an acknowledge research-practice gap may limit actual impact on restoration practice^{1,2}. A focus on effective research – practice collaboration, inspired by translational sciences, may be necessary to address this gap.

This project aims to develop a process of palaeoecology-practice collaboration (Figure 4) with practitioners from the Wildlife Trusts to inform the practical restoration of three lowland raised bog sites (Figure 2). We present methods for engaging practitioners in early project stages of research design (Figure 1) to ensure relevance of research questions for practical restoration and increase research impact.

2. METHODS: BUILDING ENGAGEMENT IN THE RESEARCH PROCESS

The project utilized surveys and an online workshop (Figure 3; ▲) to co-produce three questions most relevant to the ongoing restoration work, guided by earlier conversations with practitioners. Participants including practitioners responsible for the restoration of the study sites and academics engaging in relevant research. These activities also focused on barriers to effective collaboration and potential solutions.

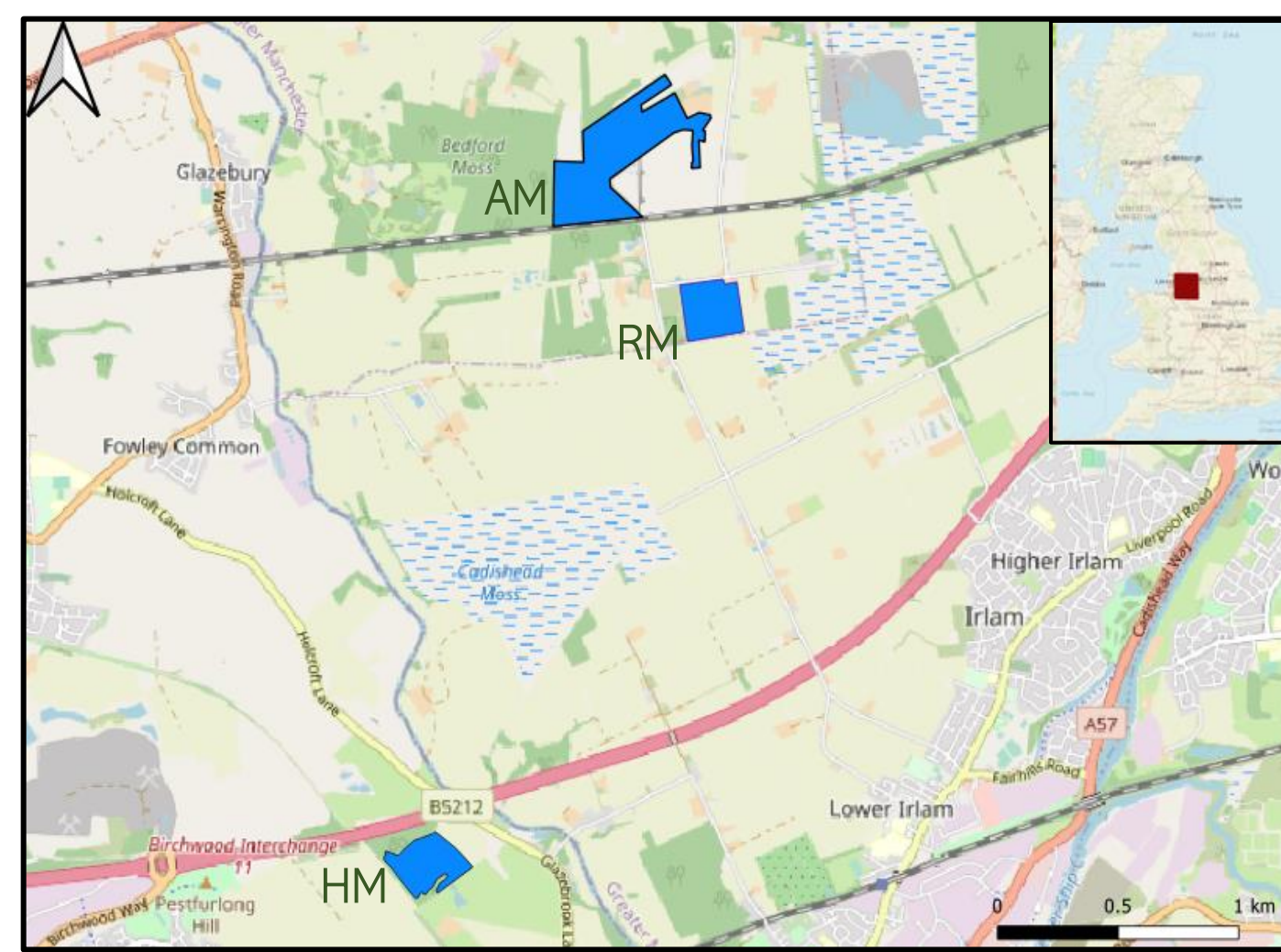


FIGURE 2: STUDY SITES: HOLCROFT MOSS (HM); ASTLEY MOSS (AM); RINDLE MOSS (RM).

3. RESULTS: WORKSHOP OUTCOMES

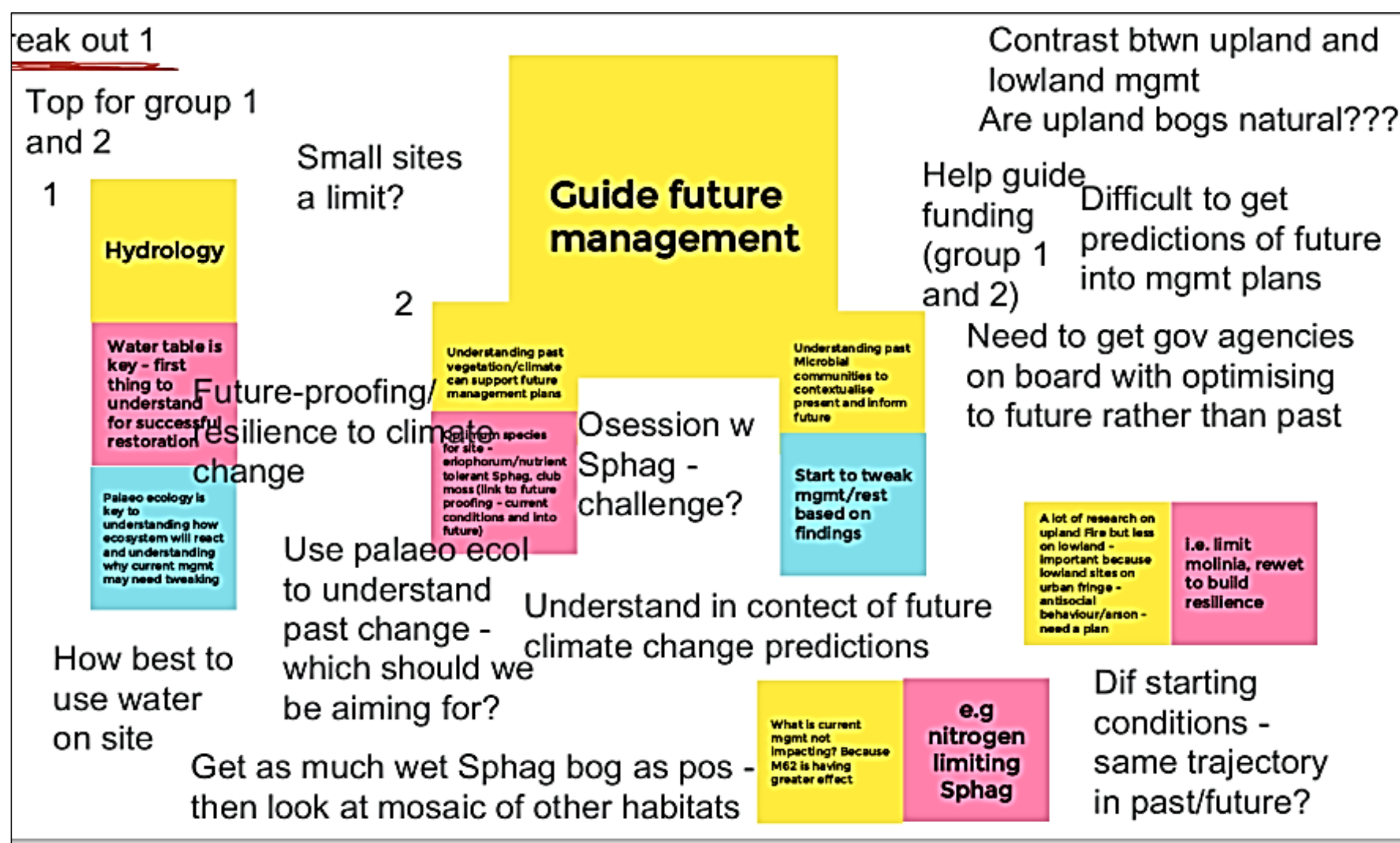


FIGURE 3: WORKSHOP OUTCOMES:- UPPER LEFT RAW WORKSHOP CONVERSATION REGARDING RESEARCH FOCUS RECORDED BY PARTICIPANTS; **LOWER LEFT** EXAMPLE OF **ACADEMIC** VERSUS **PRACTITIONER**-FRAMED RESEARCH QUESTIONS, AS LANGUAGE WAS IDENTIFIED AS A KEY COLLABORATIVE BARRIER; **UPPER RIGHT** KEY IDENTIFIED BARRIERS AND SOLUTIONS FOR EFFECTIVE COLLABORATION.

Are the water tables at optimal levels or can they be improved? How resilient will each bog be to future fluctuations? → What is the achievable optimal water level on site?

4. CONCLUSIONS

Evidence suggests that palaeoecological research is not achieving its full potential impact on peatland restoration practice. A focus on developing methods for practitioner engagement in palaeoecology is suggested, inspired by translational sciences. Combining meetings, site visits, surveys, and a workshop enabled the co-production of research questions with practitioners from the perspective of restoration needs.

KEY

- Practitioner engagement
- ▲ Poster focus
- Data collection

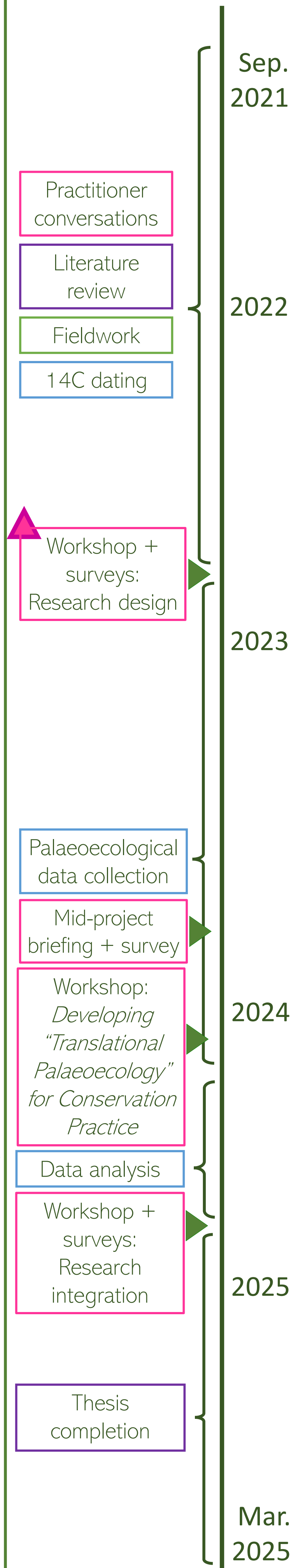


FIGURE 4: TIMELINE OF THE PHD PROJECT, HIGHLIGHTING KEY STAGES OF PRACTITIONER ENGAGEMENT.

[1] Nel, J. L., Roux, D. J., Driver, A., Hill, L., Maherry, A. C., Snaddon, K., Petersen, C. R., Smith-Adao, L. B., Van Deventer, H., Reyers, B. (2016). *Conservation Biology*, 30(1), 176-188. [2] McCarroll, J., Chambers, F. M., Webb, J. C., Thom, T. (2017). *Quaternary International*, 432, 39-47. [3] Froyd, C. A. and Willis, K. J. (2008). *Quaternary Science Reviews*, 27, 1723-1732.