Life after knotweed: investigating recovery of invader-dominated habitats

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complete weed control

ADVANCED INVASIVES

UNDEB EWROPEAIDD
EUROPEAN UNION

Llywodraeth Cymru
Welsh Government

Cronfa Gymdeithasol Ewrop
European Social Fund

kess2

Ysgoloriaethau Sgiliau Economi Gwybodaeth
Knowledge Economy Skills Scholarships

AICL
Where needs take us

RT
rigby taylor

Long-term observations & experiments

Control (2012-present)

Biological Invasions

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Optimising physiochemical control of invasive Japanese knotweed

Authors | Authors and affiliations

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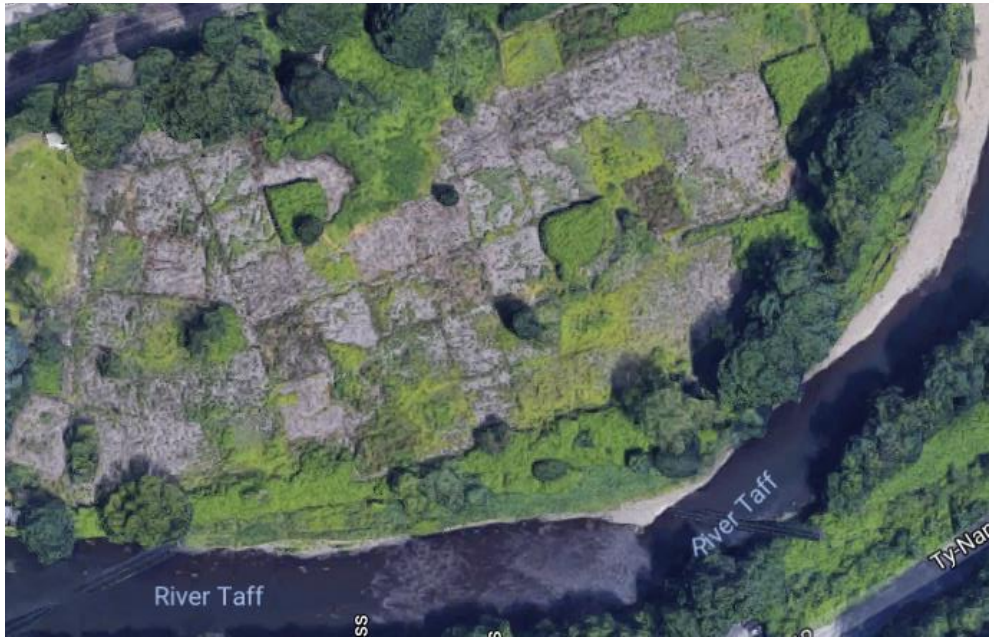


Google Maps (2018)

Control alone → secondary invasion

- Knotweed control achievable over many seasons, but problem is replaced by another one.
- **Need to consider whole ecosystem, not just target species!**

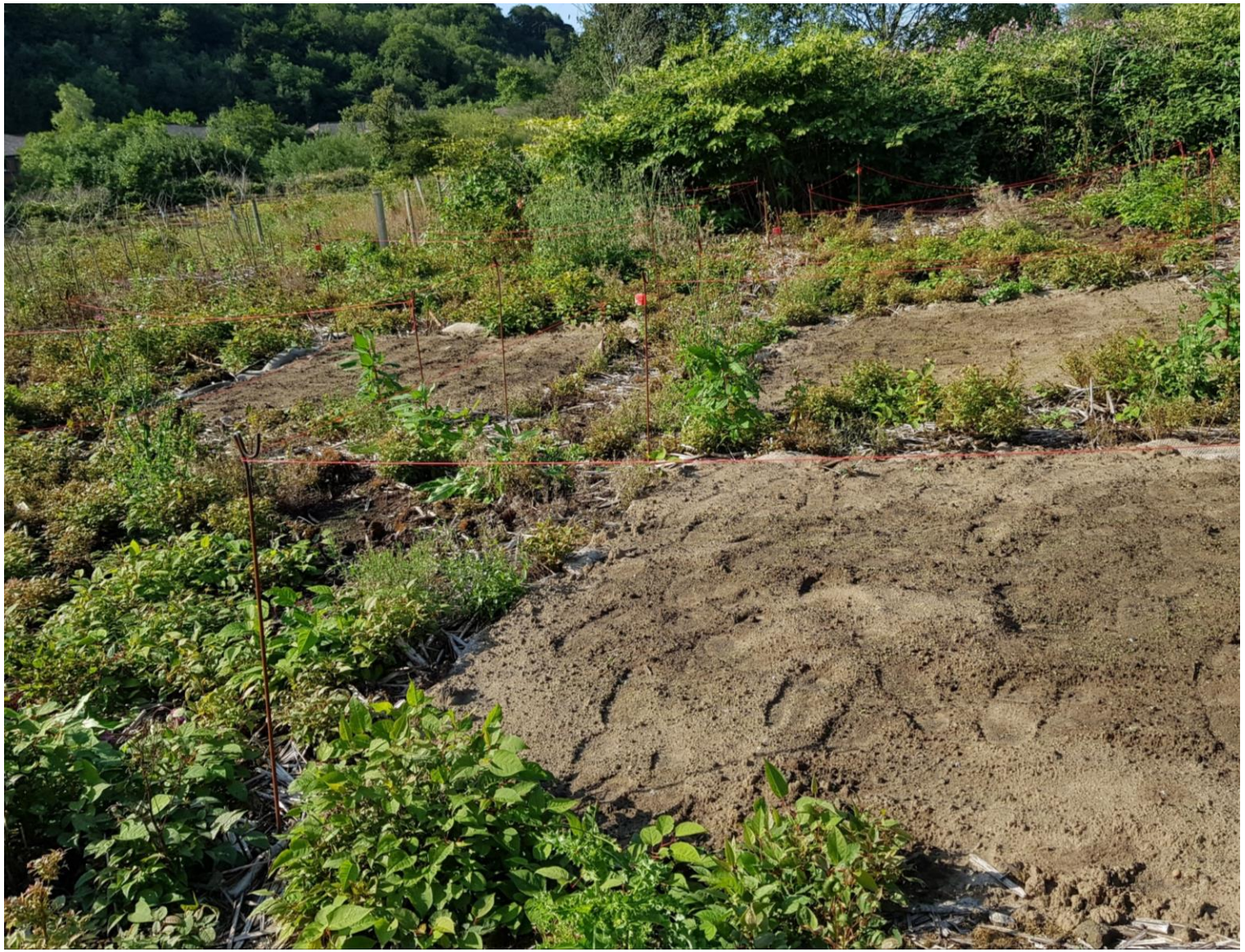
Continued control → degraded land

How do we restore invader-dominated habitat?

- What makes knotweed a good competitor? (Plant functional traits)
- How does knotweed affect habitat? (legacy effects & management)
- What makes habitat liable to invasion? (environment & community dynamics)
- How can this inform restoration?

Restoration trials

81 x 9m^2 restoration plots total



- Effects of functional traits on restoration outcomes (Laughlin *et al.,* 2014)
- Integrated control & habitat management
- Physical barriers & timing of restoration to increase priority effects for natives
- Effects of propagule pressure on restoration outcomes
- Passive vs active management