Translocation of the pox lichen *Pyrenula nitida* at Burnham Beeches

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BACK FROM THE BRINK

HERITAGE FUND

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For lichens translocation is often essentially a rescue mission

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Burnham Beeches NNR

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Pyrenula nitida – a pox lichen – a southern beech specialist occupying rain tracks on veteran beech

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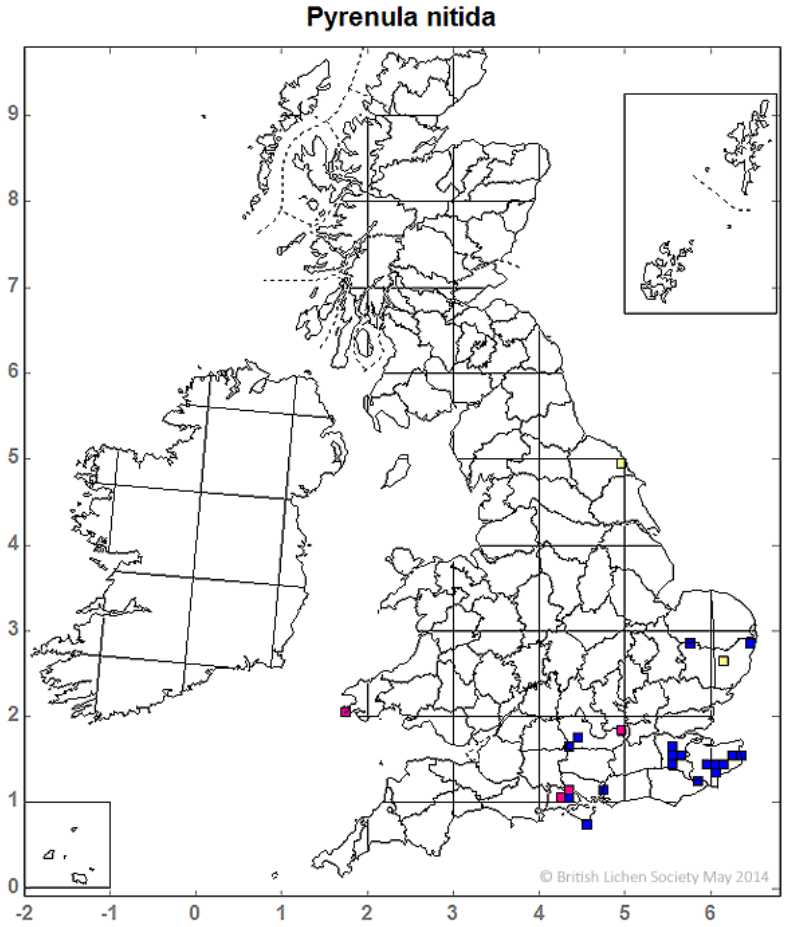

BACK FROM THE BRINK

Initial transplants 2001 (Purvis 2016)

© W.O. Purvis (Purvis 2016)

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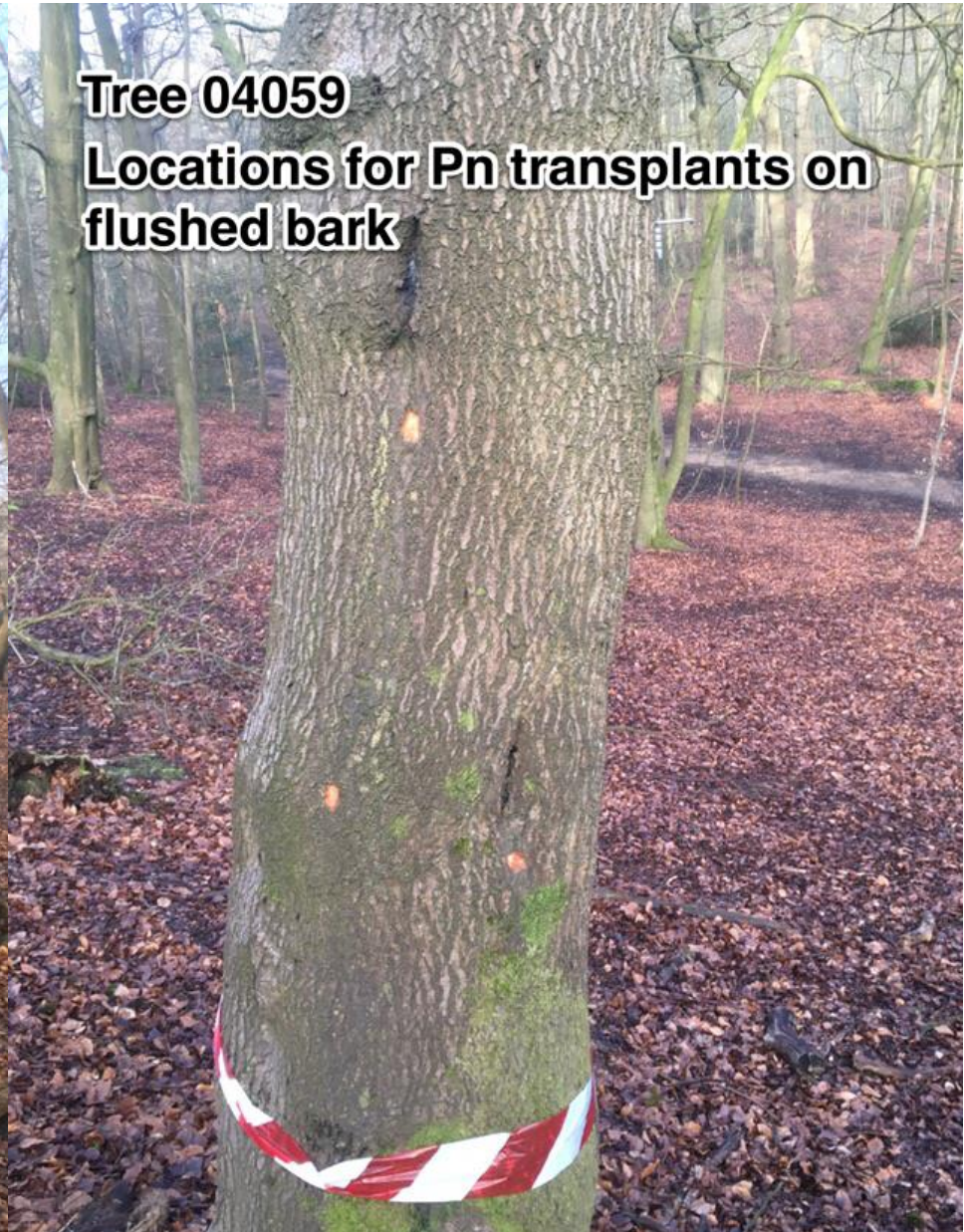
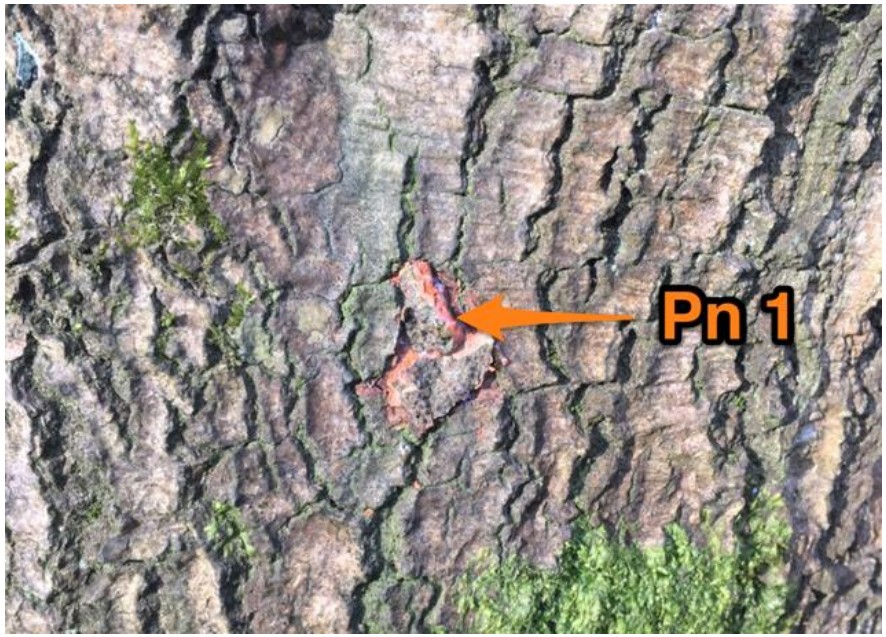
Technique

- Initial aim was to try to perform a graft
- Various techniques considered and tested before settling on (resorting to?) this one e.g. use of grafting wax, use of increment borer
- Remove material from donor tree, selecting healthy material, removing in small pieces with bark
- Identify receptor trees based on presence of niche – less acidic rain or wound tracks – using physical features and indicator species e.g. *Orthotricum* spp, the liverwort *Metzgeria furcata* and the lichens *Enterographa crassa* and *Porina* spp.
- Cut 'hole' in bark of receptor tree to shape of transplant flake
- Glue in place aiming for a flush and snug fit
- Recording – tree tag, GPS, photos

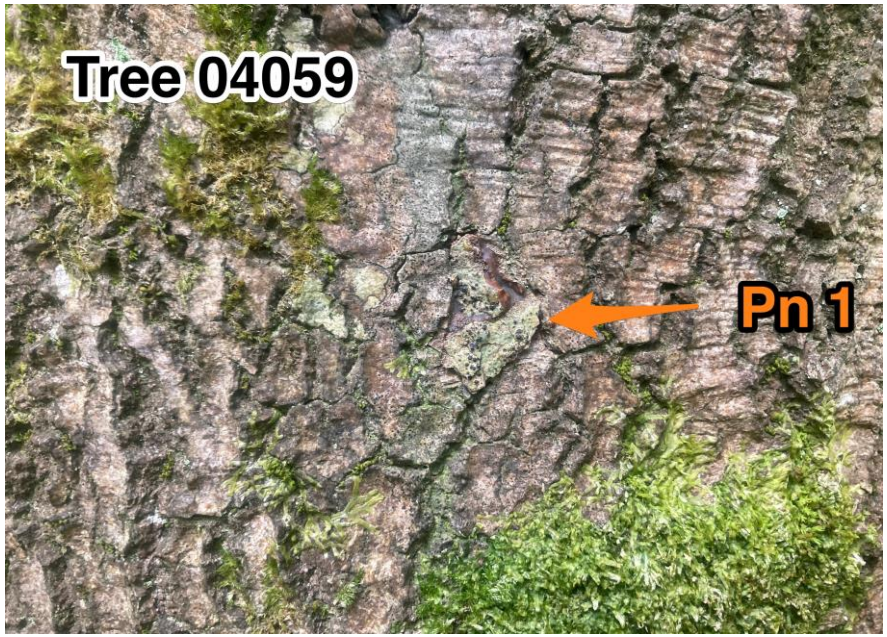

Tree 04059 from the north


Tree 04059
Locations for Pn transplants on flushed bark

March 2019

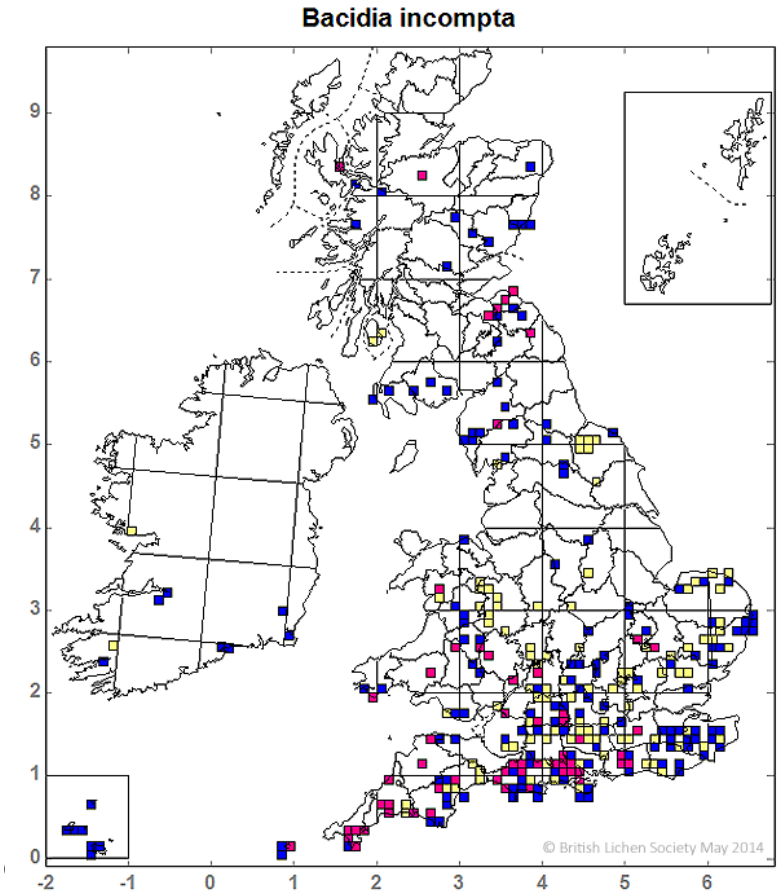


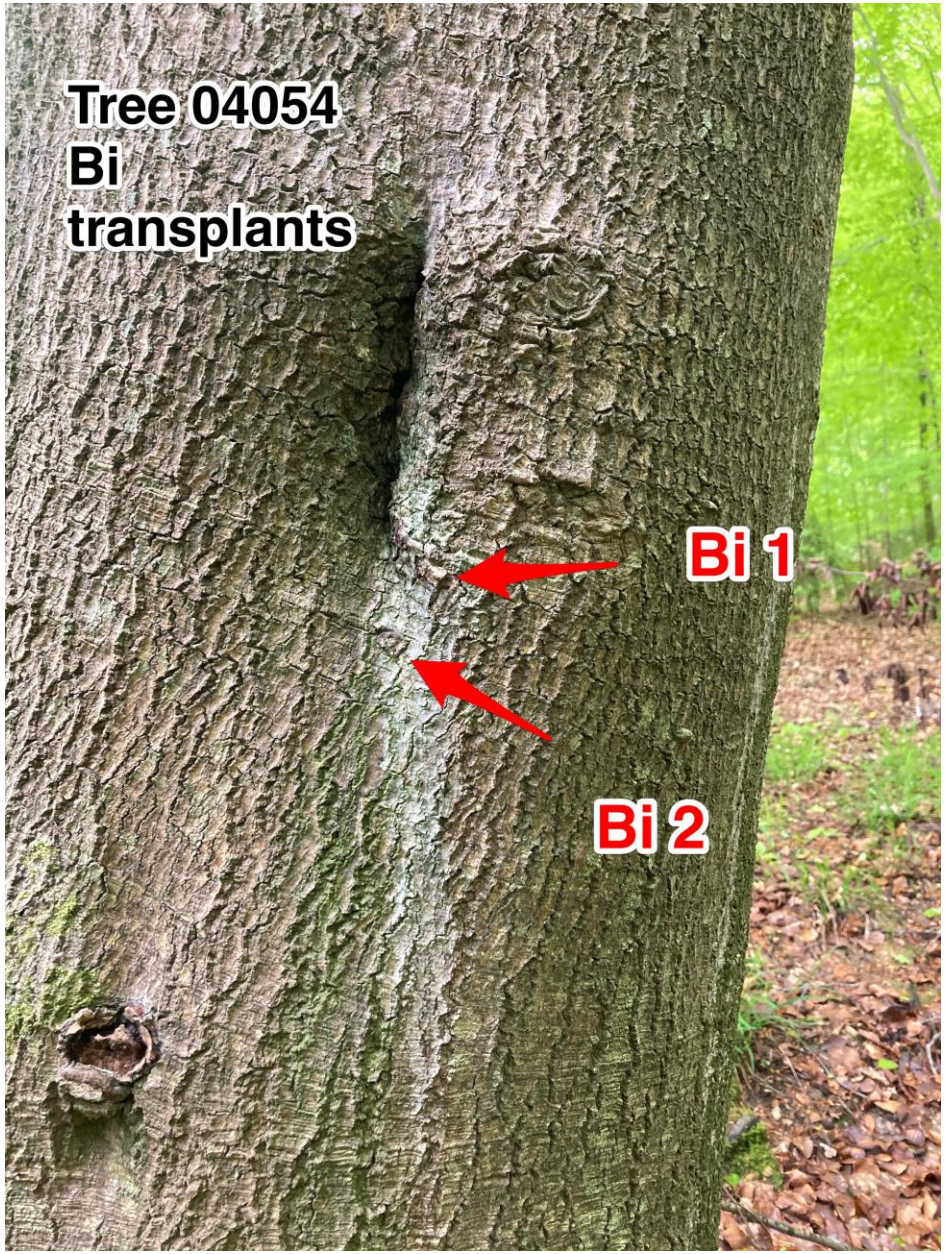
May 2021



Bellicidia (*Bacidia*) *incompta* – the sap-groove lichen – a rain/wound track species, and a former elm specialist

© Geof Howe




Tree 04054
Bi
transplants
Bi 1
Bi 2

Measuring success?

- Is the transplant still present? 31 of the initial 33 still present in 2021
- Has the transplant spread off the transplanted flake?
- Has the lichen colonised elsewhere on the tree?
- Has the lichen colonised other trees in the vicinity?


Bi 1 Tree 04054

What have we learnt?

- Mixing two-part Araldite in the field is messy! Would try an aquarium glue next time.
- Early days.
- Although it's not really known how quickly the species will grow or colonise, their ecology suggests this could happen relatively quickly. Are we already seeing spread of the *Bellicidia*??
- Survival of the transplanted flakes seems good for the *Pyrenula*, not so good for the *Bellicidia*, is this down to the thick waxy thallus of the *Pyrenula*? 2001 transplants have survived 20 years.
- Identifying niche correctly is fundamentally important, even down to what other competitors are present or not e.g. *Bellicidia* (*Bacidia*) *incompta* requiring bare rain/wound tracks. This is a challenge for many lichen species as relatively little is known about their ecology.
- Favourable habitat conditions and management crucial for long-term survival of important lichen communities

Thanks are due to….
Neil Sanderson
City of London team at Burnham Beeches

Thanks for listening

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