

*A tale of two translocations**

Why progress on two endangered rainforest tree species conservation translocations is so different



Two rare rainforest tree species

Identified as requiring a conservation translocation to ensure ongoing persistence

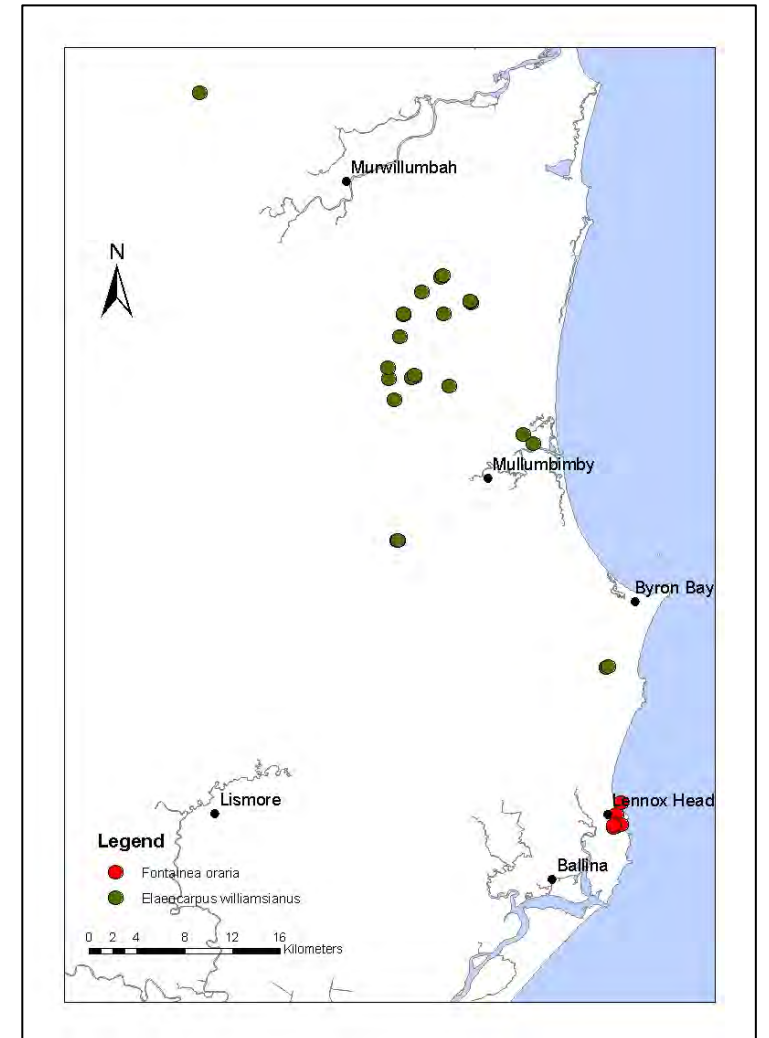
Coastal Fontainea *Fontainea oraria*: Euphorbiaceae

- Critically endangered
- Small rainforest tree
- Littoral rainforest at Lennox Head



Hairy Quandong *Elaeocarpus williamsianus*: Elaeocarpaceae

- Endangered
- Small rainforest tree
- Subtropical and warm temperate rainforest



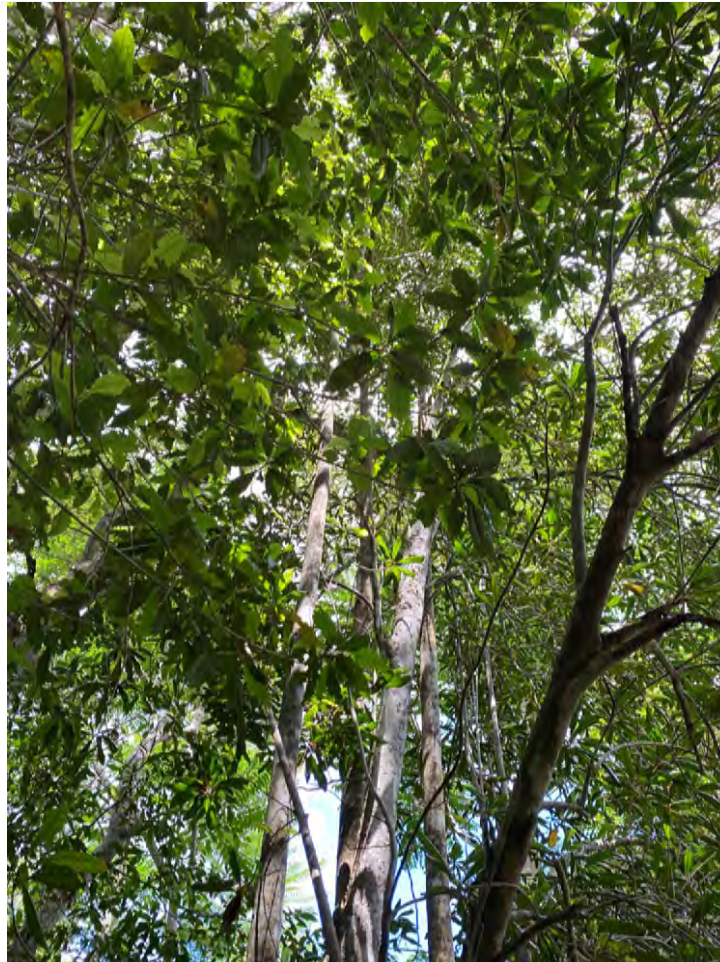
Reasons for translocation: Coastal Fontainea

- 10 mature wild plants
- Inbreeding evident in seedlings
- Highly restricted distribution
- Only 1 female tree left (plants are dioecious)
- No plants in reserves
- Seed does not store conventionally
- Habitat heavily weed infested
- Pressure from urban development



Reasons for translocation: Hairy Quandong

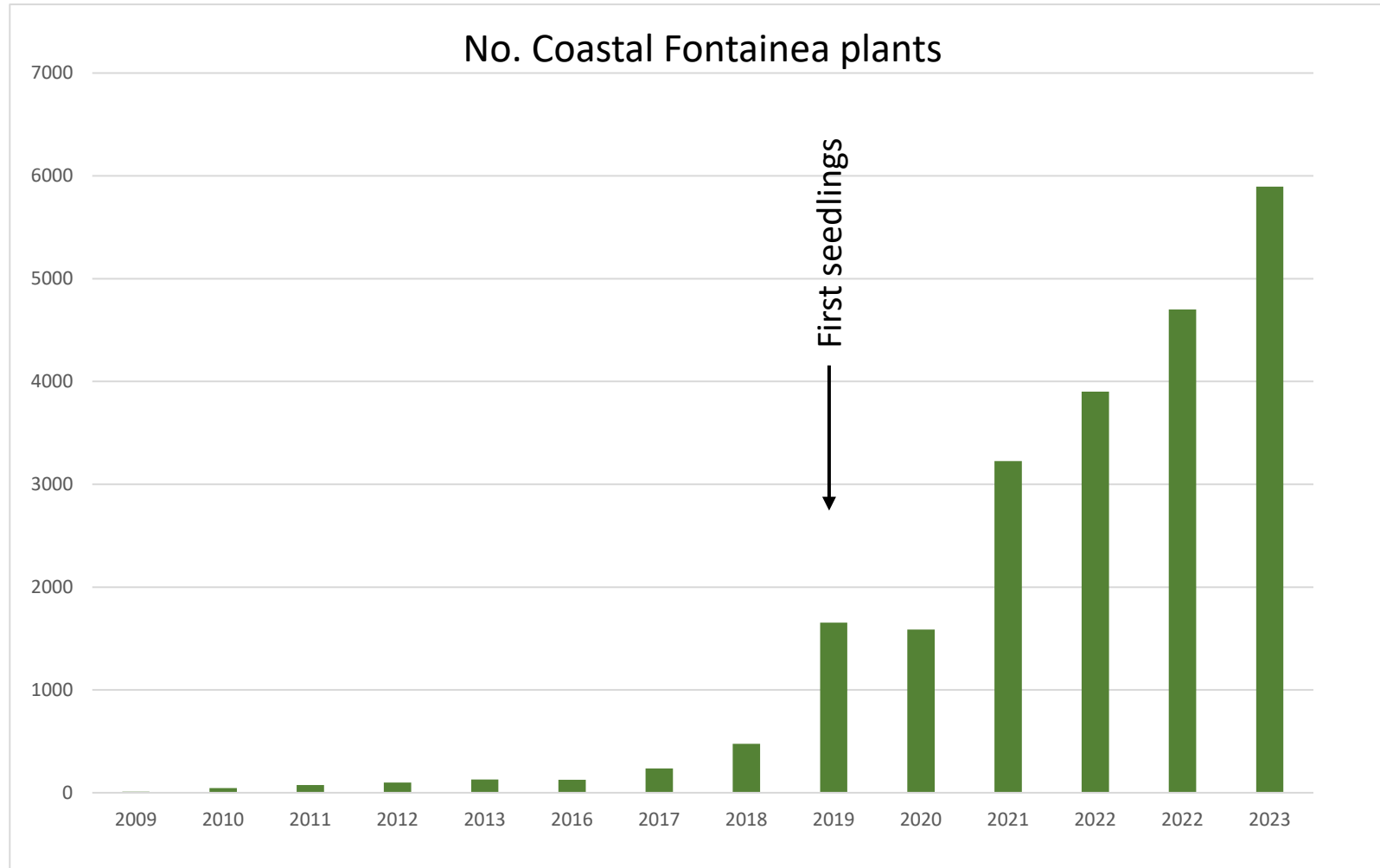
- Clonal – very few “individuals”
- Small population (~16 sites)
- Restricted distribution
- Populations are isolated
- No seed produced
- Highly cleared landscape



The translocation projects

	Coastal Fontainea	Hairy Quandong
Project extent	14 years (2010 - present)	13 years (2011 - present)
Propagation technique	Cuttings from each adult plant	Cuttings from a mix of populations
Propagation success	Good cutting strike rate	Poor cutting strike rate
Planting design	Clumped planting to promote cross-pollination	
Growth rate (relative)	Fast	Slow

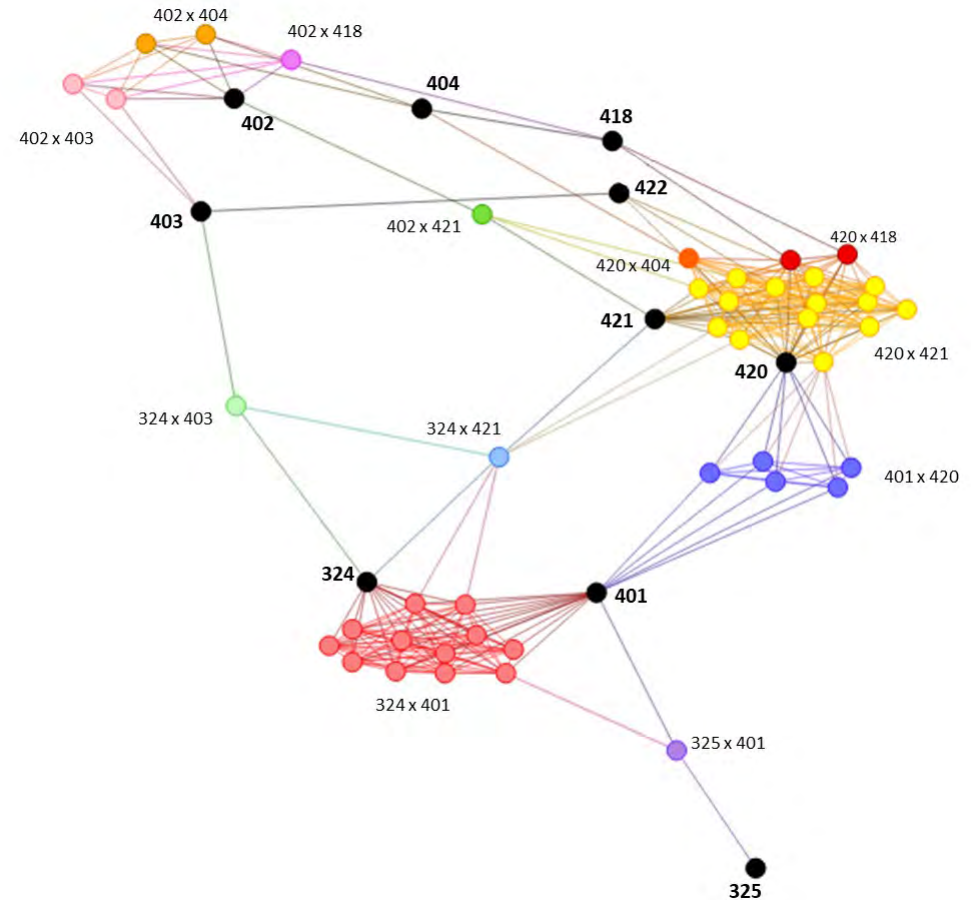
How are we tracking: Coastal Fontainea



How are we tracking: Coastal Fontainea

Genetic rescue:

- Genetic study indicates seedlings have increased genetic diversity than wild seedlings
- Some translocation sites have generated seedlings from unique combinations of parents in comparison to wild seedlings.
- Previously unrepresented genes in seedlings.



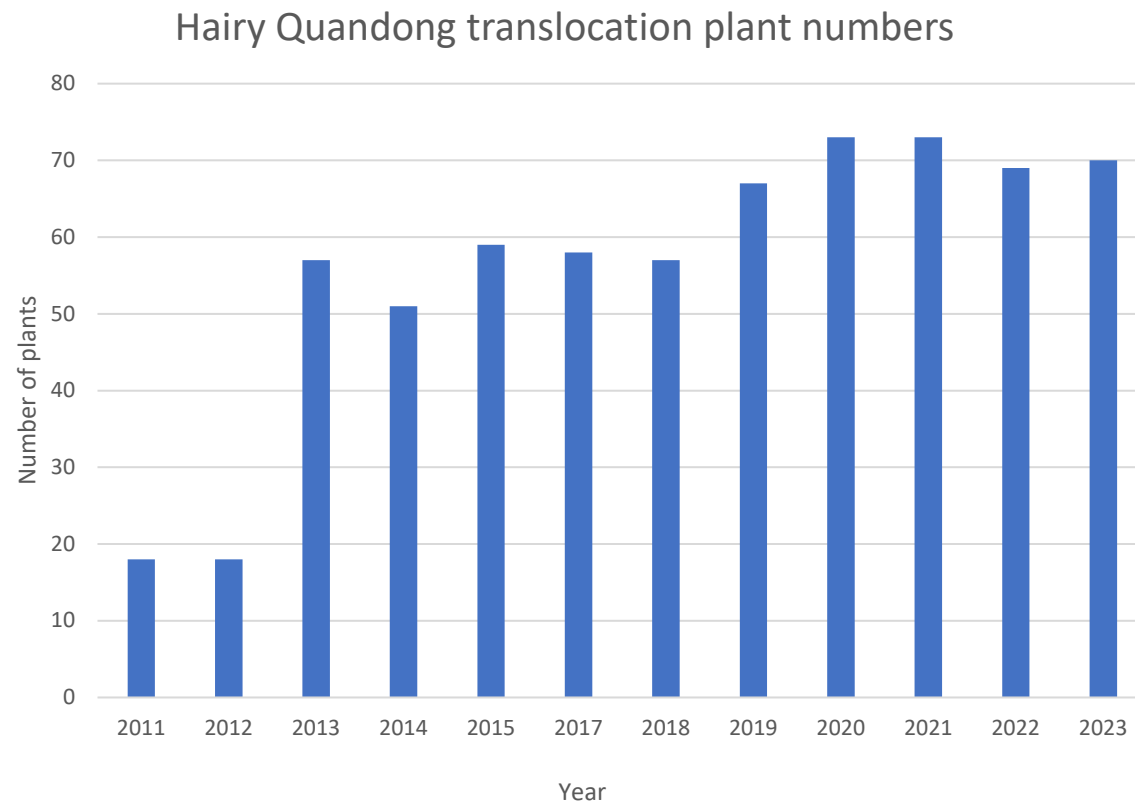
From RBG ReCER 2021 *F. oraria* conservation genomics report

Summary - Coastal Fontainea

- Over 280 trees planted
- Planted Fontainea flower, fruit and produce seedlings
- Nearly 6000 plants (mostly seedlings from planted specimens)
- 23 sites, 1 on NPWS estate, 11 on PP and 11 on Council land
- Increased genetic diversity
- First planting of “super seedlings” May 2024.



How are we tracking: Hairy Quandong



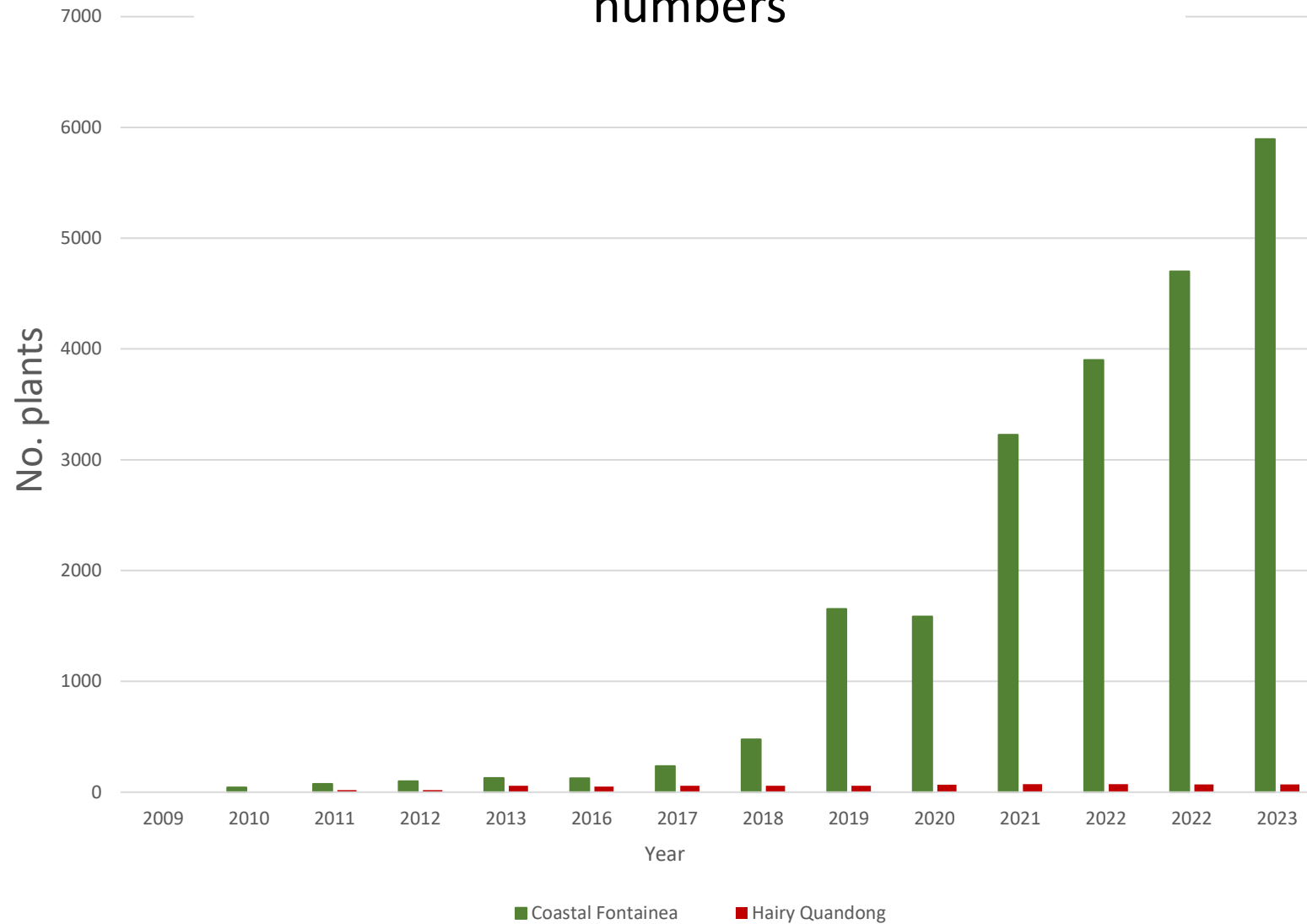


Hairy Quandong - The good bits and the less good bits

- 11 sites
- 70 plants
- First flowering 2020

- Five sites have produced flowers
- Four sites have produced fruit
- No germination to date

Hairy Quandong and Coastal Fontainea plant numbers





What can we learn

- Translocation programs are long games
- Even with good information and detailed planning project outcomes can vary dramatically
- “Tree time” i.e. longer than human
- Success is not only about total numbers
- Work in progress
- Collaborations with many





