

# Where are we with those weeds?

Angela Bownes

# Funding

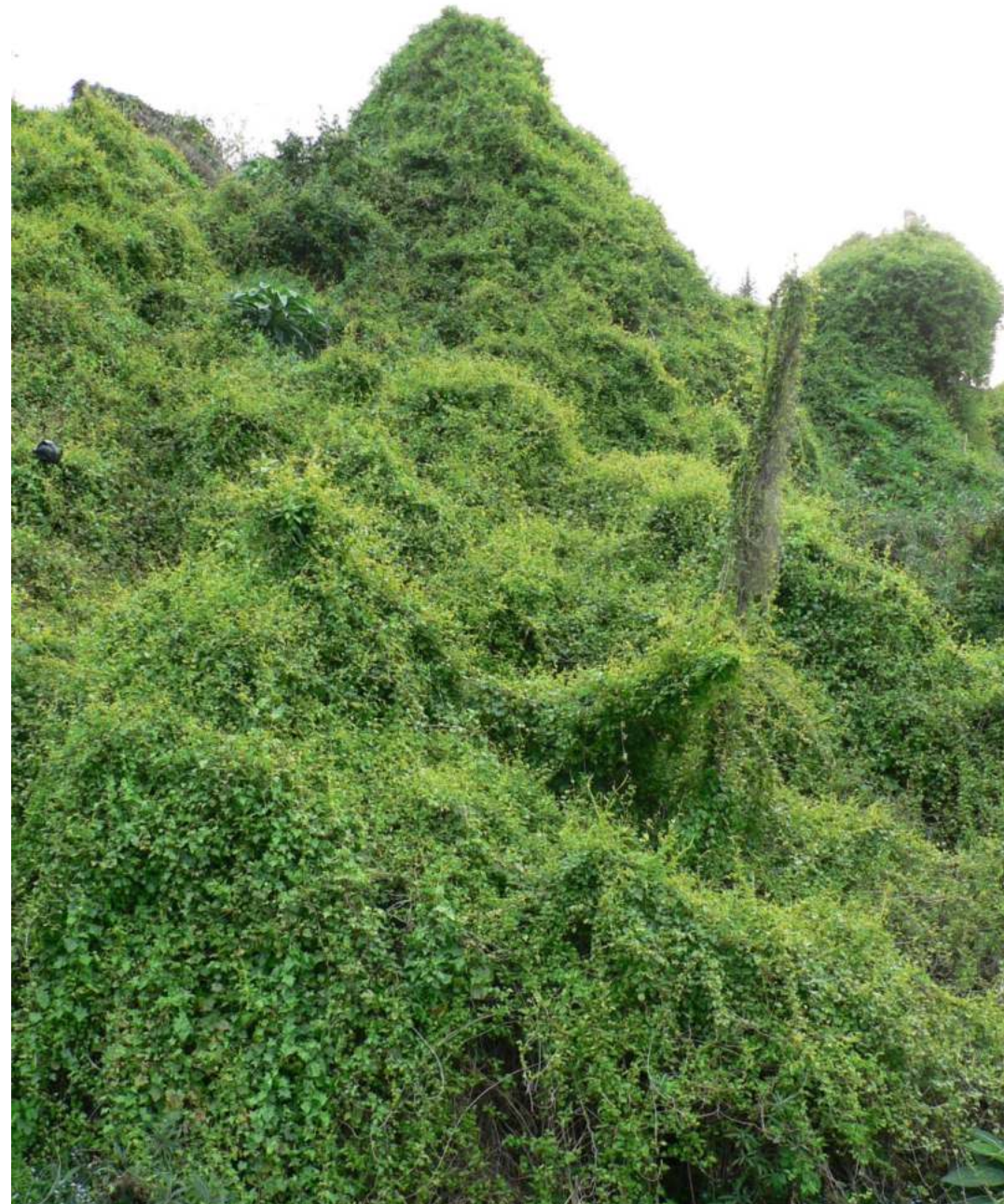
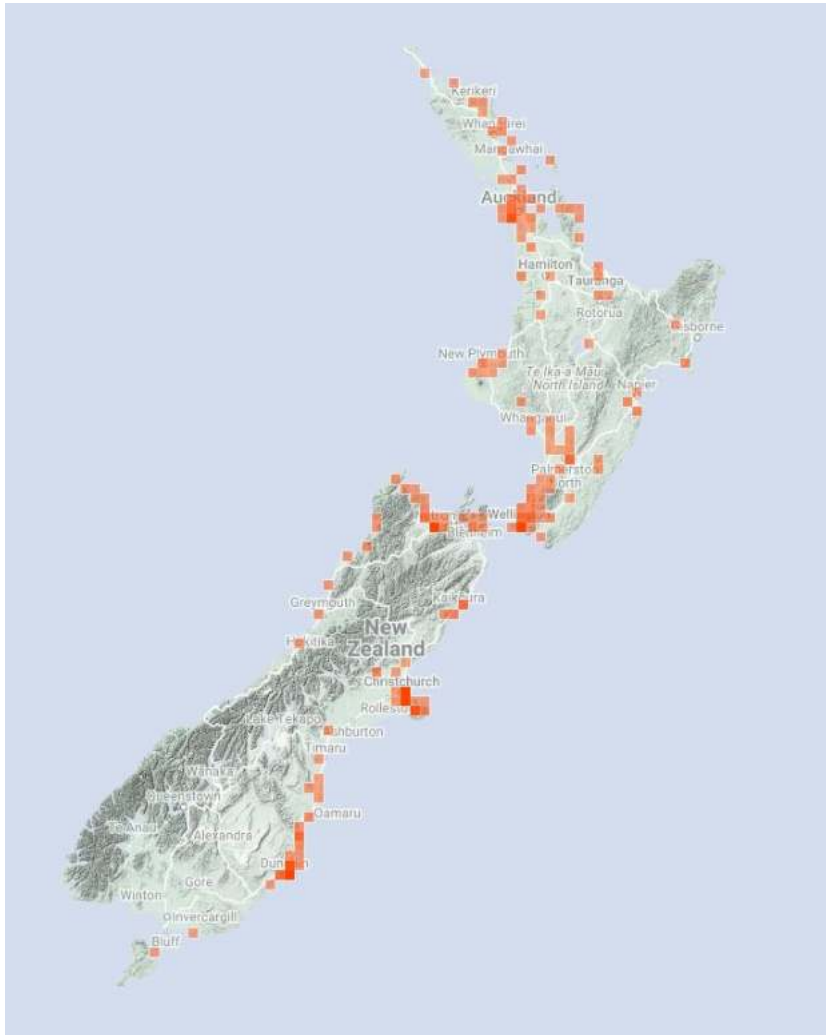


- National Biocontrol Collective (NBC)
  - 5 environmental weeds
- MPI's Sustainable Food Fibre & Futures – with co-investment from the NBC
  - 6 productive sector weeds
- Regional Council-funded projects
  - three individual projects

# Banana Passionfruit, *Passiflora* spp. (*Tacsonia* subgenus)



- Large, perennial, high-climbing vine
- Smothers canopy, forming large masses
- Outcompetes native plants and prevents regeneration





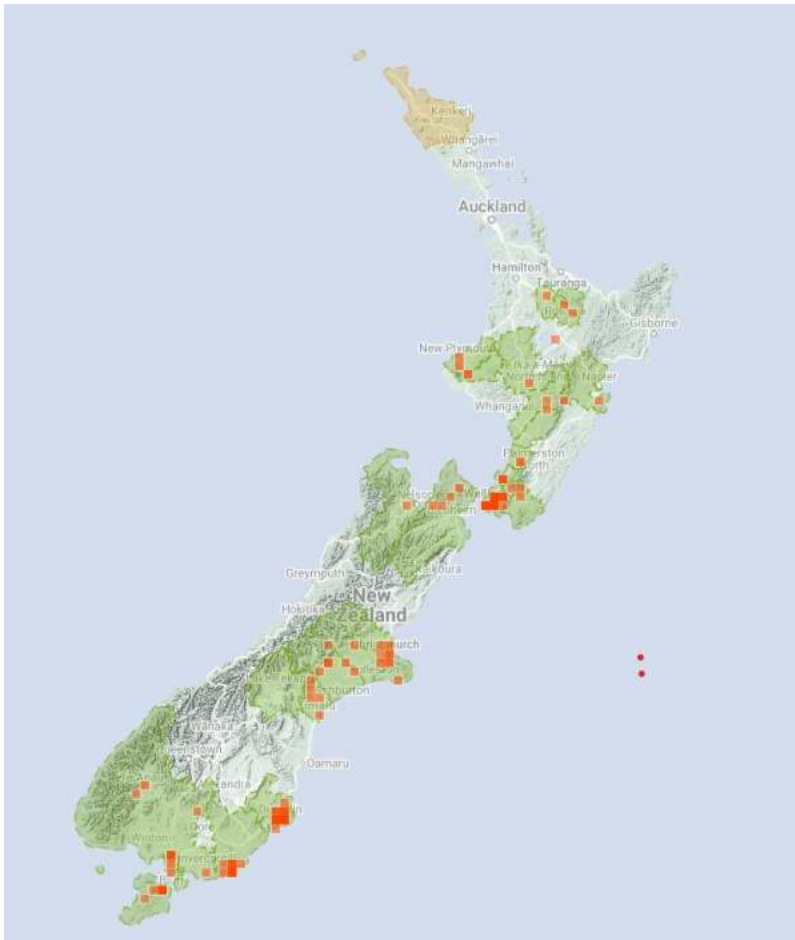
# Banana Passionfruit, *Passiflora* spp. (*Tacsonia* subgenus)





# Darwin's Barberry, *Berberis darwinii*

- Evergreen, spiny, wooded shrub
- Long-lived with well-dispersed seeds
- Replaces shrubland and regenerating forest
- Threat to forestry, pasture and native ecosystems





# Darwin's Barberry, *Berberis darwinii*

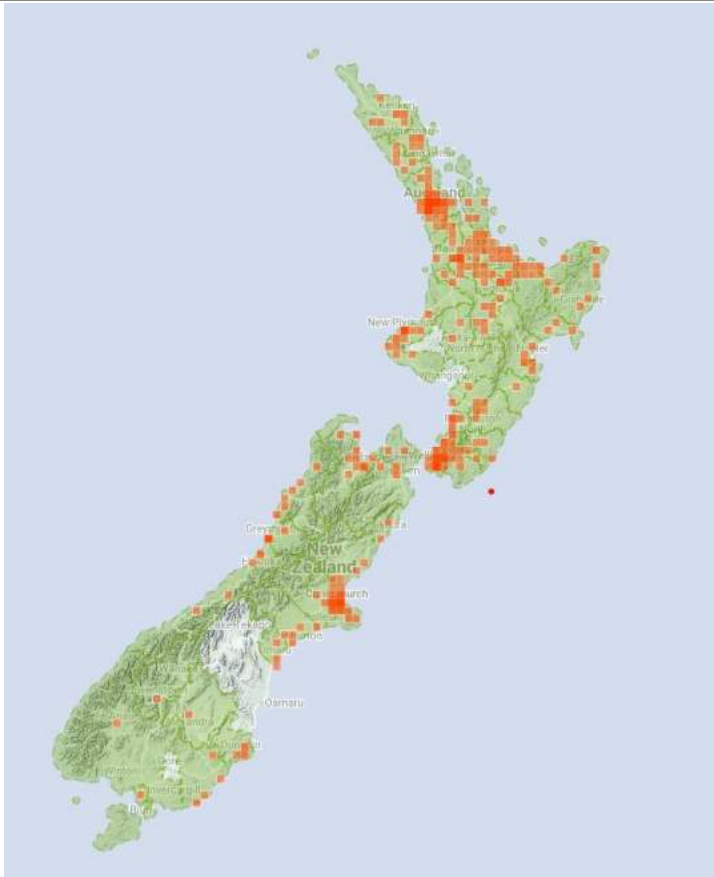




# Japanese Honeysuckle, *Lonicera japonica*



- Vigorous, evergreen climber
- Climbing, smothering habit, forming long-lived masses
- Smothers plants from ground to medium canopy
- Forms dense mats, smothering native vegetation





# Japanese Honeysuckle, *Lonicera japonica*





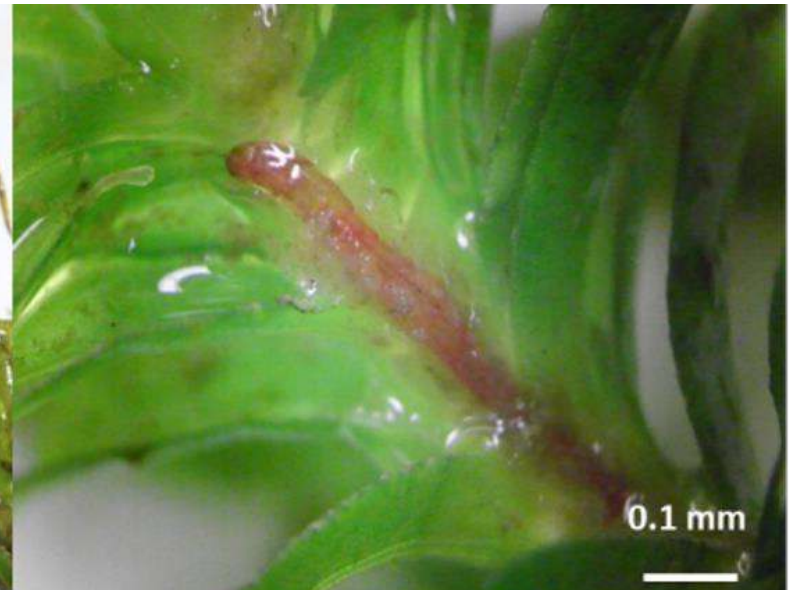
# Lagarosiphon, *Lagarosiphon major*

- Rooted, perennial, submerged oxygen weed
- Forms dense mats, smothering and replacing native aquatic vegetation
- Reduces the availability of oxygen to native fish, impacting lifecycles and food chains





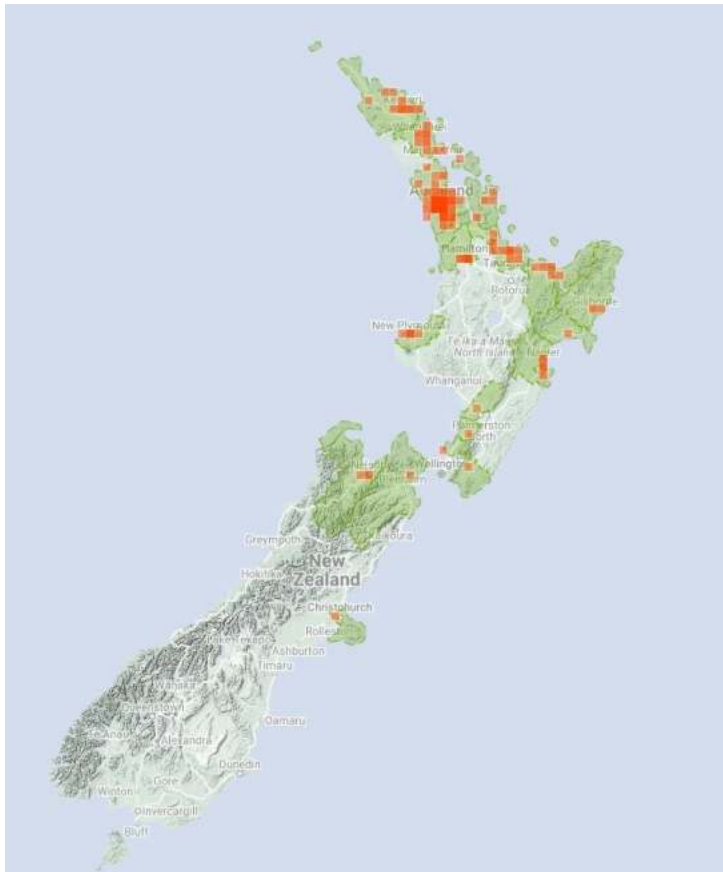
# Lagarosiphon, *Lagarosiphon major*





# Moth Plant, *Araujia hortorum*

- Perennial, climbing vine with twining, scrambling, woody stems
- Poisonous milky latex in stems, leaves and roots
- Smothers native vegetation and prevents recruitment
- Potential to impact forest structure





# Moth Plant, *Araujia hortorum*

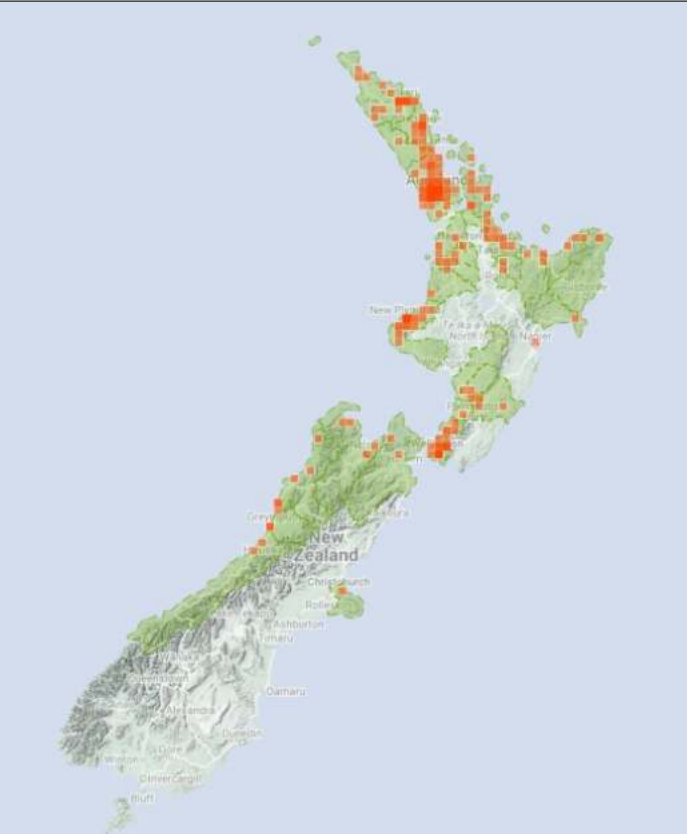




# Wild ginger, *Hedychium gardnerianum*



- Non-woody perennial herb
- Long-lived, fast growing, forming deep rhizome beds
- Forms dense stands through forest understory, on the margins of waterways and roadsides
- Smothers and replaces all understory species and seedlings









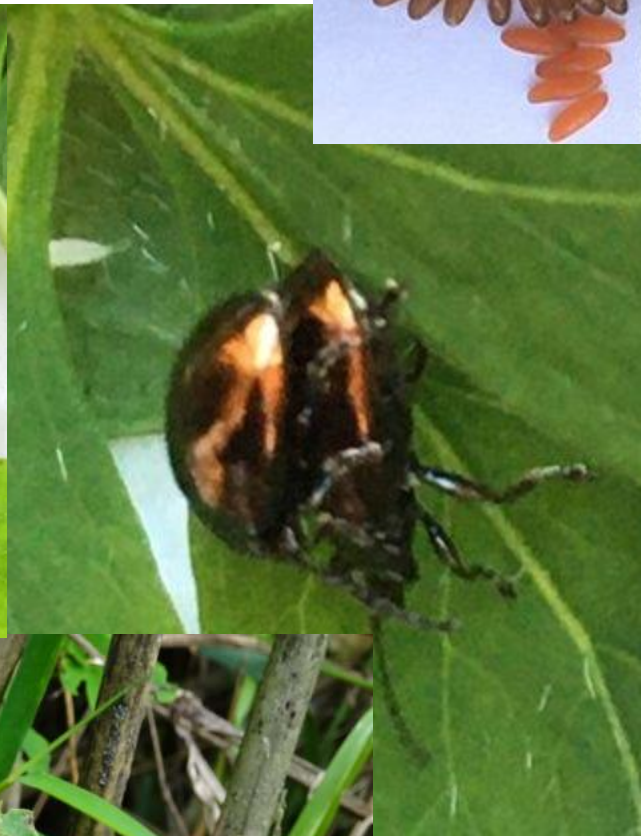
# Chilean flame creeper, *Tropaeolum speciosum*

- Deciduous, climbing perennial
- Invades forest margins and disturbed sites
- Climbs into tree canopies, suppressing growth and replacing native species through smothering and shading





# Chilean flame creeper, *Tropaeolum speciosum*

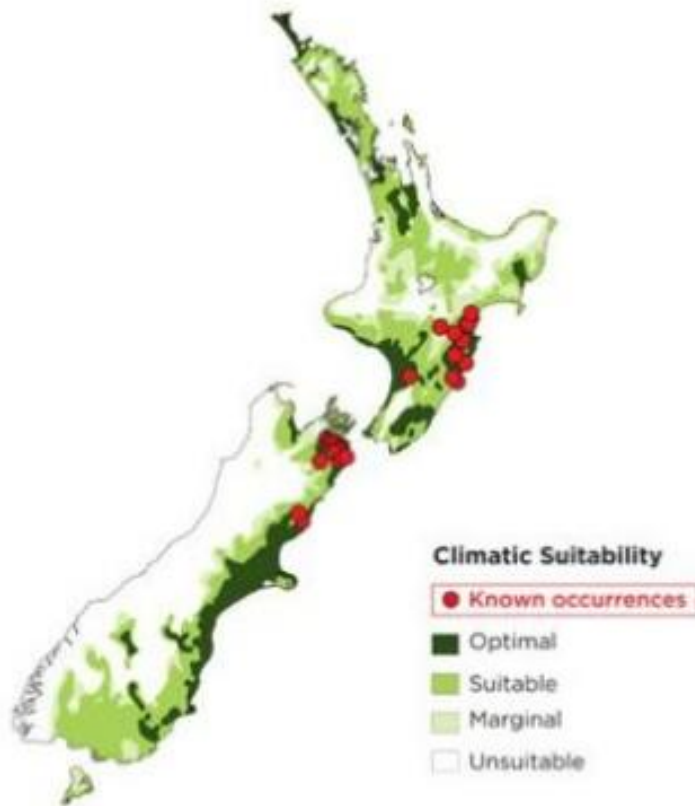




# Chilean Needle Grass, *Nassella neesiana*



- An erect, tufted perennial grass
- Outcompetes pastures grasses
- Seeds have a sharp, needle-like tip harmful to livestock
- Downgrades hides, meat and wool

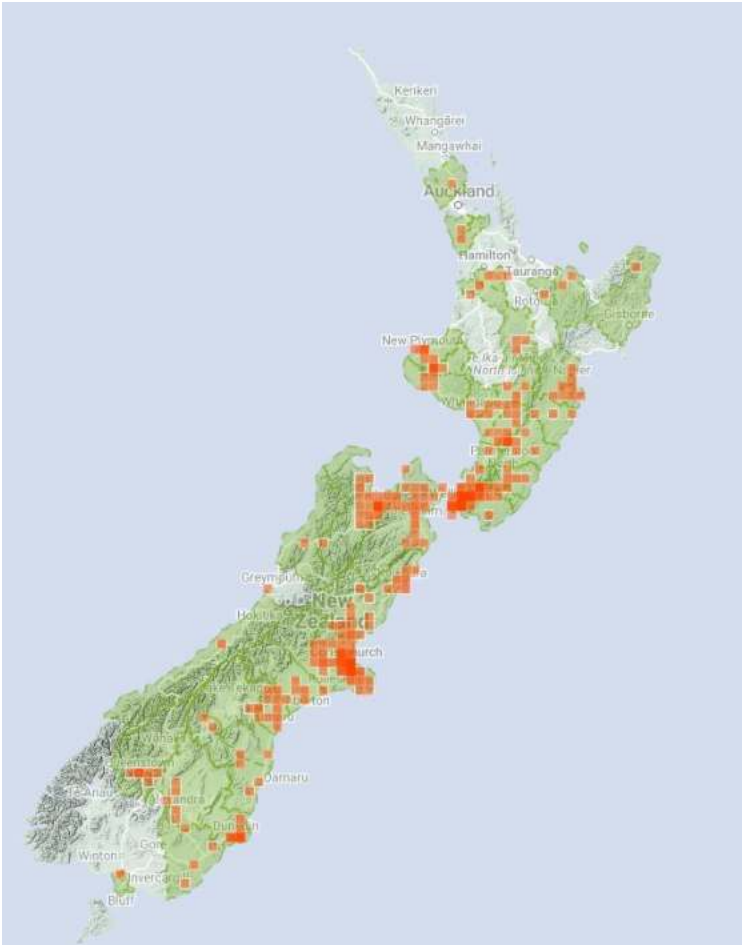




# Old man's beard, *Clematis vitalba*



- Deciduous climbing, layering vine
- Grows rapidly forming dense, heavy masses that dominate the canopy
- Smothers and kills plants and prevents native seedling establishment









# Sydney Golden Wattle, *Acacia longifolia*



- Woody shrub or small tree
- Invades open habitats and forms dense, shady thickets
- Dense stands displace native species, change habitat structure and increase the risk of fire and erosion





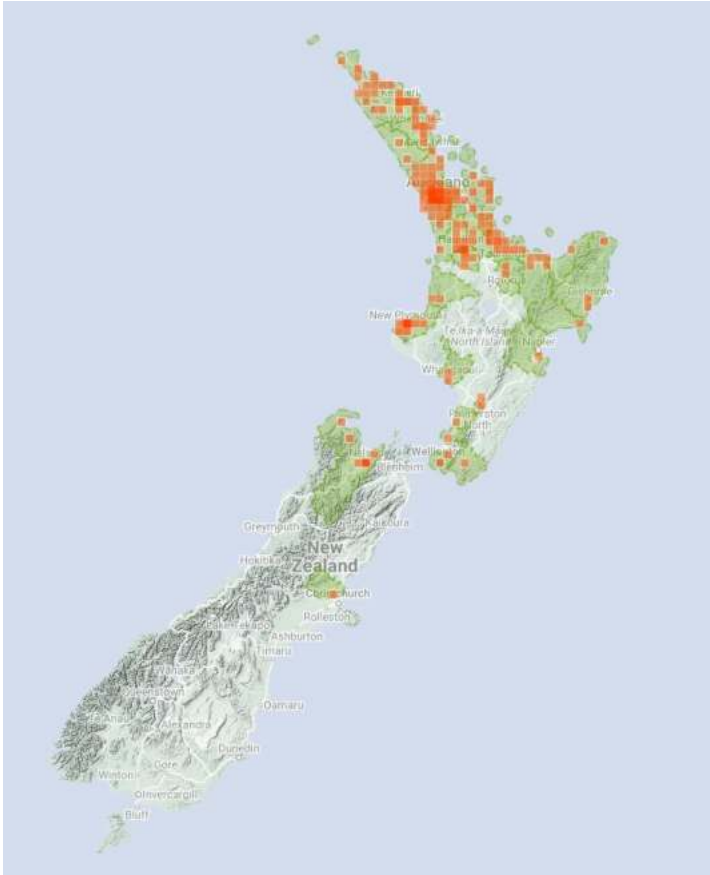




# Woolly nightshade, *Solanum mauritianum*



- Shrub or small tree with rapid growth
- Invades forest margins, disturbed forest, shrublands, riparian margins, estuarine margins, wetlands and urban areas
- Crowds and shades out native plants forming dense stands
- Inhibits forest regeneration





NBC/SFFF





# Yellow flag iris, *Iris pseudacorus*



- Robust, aquatic perennial iris that grows in dense, leafy clumps
- Rhizomes form floating mats
- Rhizome mats displace native species, especially vulnerable species on the margins of water bodies
- Poisonous seeds may impact wildlife









# Purple loosestrife, *Lythrum salicaria*

- Tall, erect perennial herb with large rootstock
- Forms dense impenetrable stands in wetlands, lakesides streams and bogs
- Outcompetes native vegetation
- Destroys wetland and marginal habitats and food sources for native wildlife



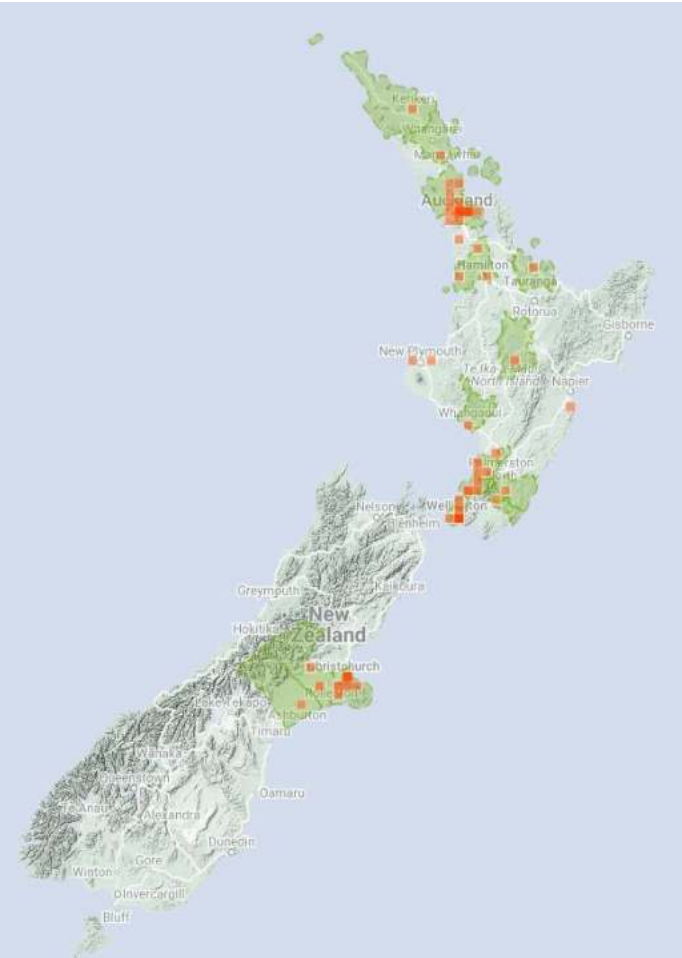






# Evergreen buckthorn, *Rhamnus alaternus*

- Evergreen, multi-stemmed shrub or tree
- Fast-growing with many viable, long-lived, well-dispersed seeds
- Forms dense stands preventing establishment of native seedlings

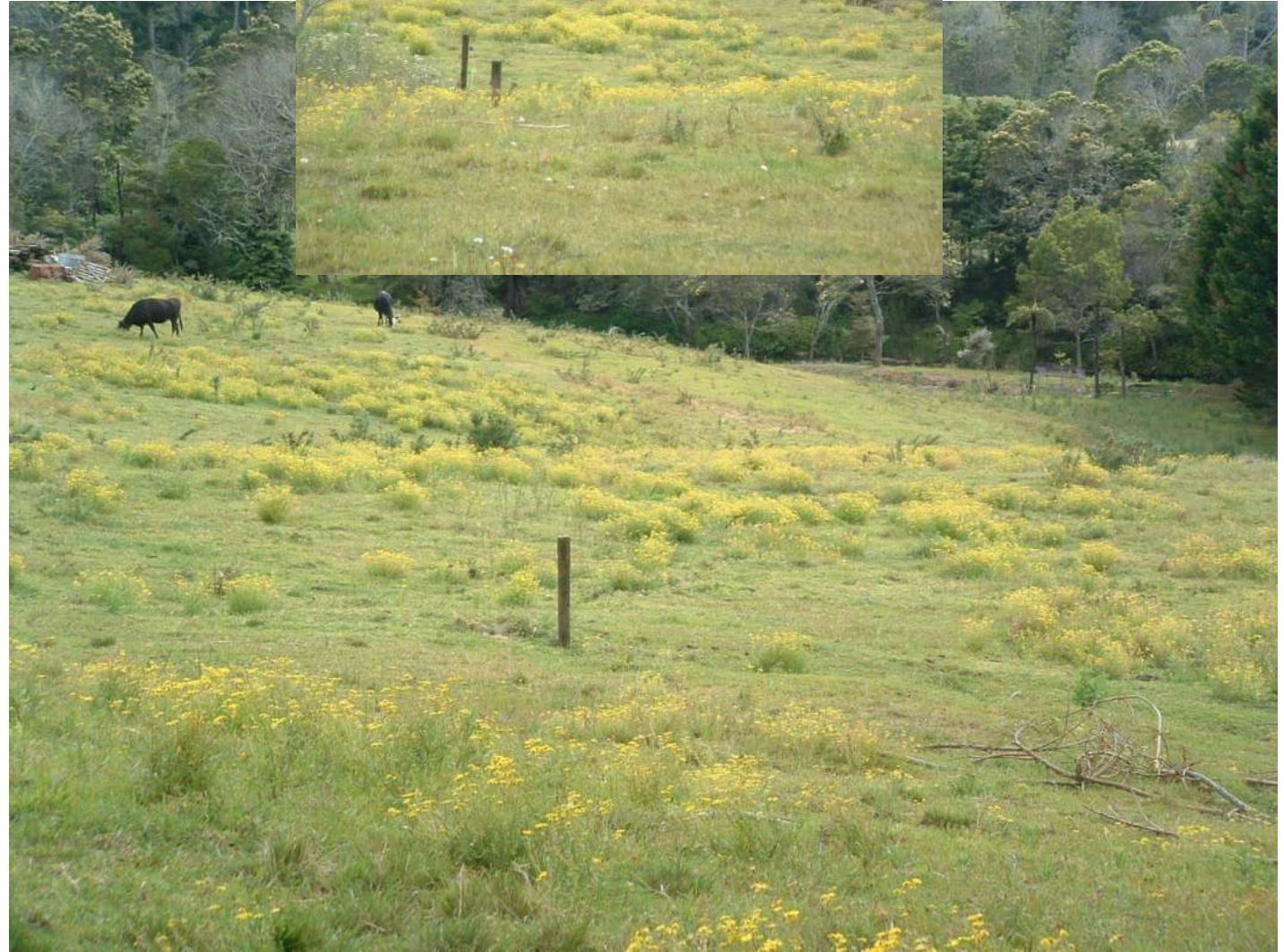




# Madagascar ragwort, *Senecio madagascariensis*



- An erect annual, biennial, or perennial herb
- Invades pastures, open woodlands, grasslands, roadsides, disturbed sites
- Poisonous – horses and livestock at risk





# Acknowledgements



- National Biocontrol Collective

- Auckland Council
- Bay of Plenty Regional Council
- Department of Conservation
- Environment Canterbury
- Environment Southland
- Hawkes Bay Regional Council
- Horizons Regional Council
- Gisborne District Council
- Greater Wellington Regional Council
- Marlborough District Council
- Northland Regional Council
- Otago Regional Council
- Tasman District Council
- Waikato Regional Council

- MPI's Sustainable Food, Fibre & Futures Fund

- Horizons Regional Council

- Auckland Council

- Northland Regional Council

- MBIE

- International collaborators: CABI (UK), CONICET (Argentina), Hernan Norambuena (Argentina), Rhodes University (South Africa); Universidad de Nariño (Colombia), Wits University (South Africa)

- MWLR weed biocontrol team