High Risk Weeds Study Tour

Outcomes report on the 2016/17 NSW Weeds Officers grant.

Sicilian Sea Lavender (*Limonium hyblaeum*) was first discovered growing in Saratoga in 2011 by university students studying salt marsh. The students sent a sample to the National Herbarium of NSW, who alerted Gosford Council to the fact that this species had only been reported once in NSW, in Lake Cargelligo in 2003. Council quickly reported the 400m2 to Dr Stephen Johnson, weed ecologist at the NSW Department of Primary Industries.

While Gosford Council (now Central Coast Council) implemented a control program with NPWS (ongoing), Stephen researched the risk associated with this species and presented his findings at the 2017 NSW Weeds Conference. According to him, Sicilian Sea Lavender has the potential to cause the collapse of coastal salt marsh and exposed rocky coastal plant communities over a wide area of Australia. Salt marsh is already at threat from infilling, modified tidal flow, weed invasion, trampling, human disturbance, recreational vehicle use, mangrove invasion, altered fire regimes and sea level rise associated with climate change and can little afford an additional threat such as that posed by Sicilian Sea Lavender.

Stephen communicated the risk associated with this invasive cushion plant so effectively that he inspired the Greater Sydney Regional Weed Coordinator to organise a study tour to the Sicilian Sea Lavender site. Salt marsh in the Greater Sydney region has been particularly devastated by human impacts. For example, a study conducted in 2007 in the Parramatta River-Sydney Harbour estuary found 757 patches of saltmarsh with a combined area of just 37.31 hectares. The majority of saltmarsh patches were found to be in poor condition.

The second stop on the itinerary was a site where Kudzu is under active management. Both of these species are Regional Priority Species in the Greater Sydney Regional Strategic Weed Management Plan, with eradication the management objective for these two highly invasive species. Achievement of that objective relies on early detection and control which in turn is dependent on the staff and volunteers that are out in the field having the skills and knowledge to correctly identify and treat the plants.

The aim of the tour was to enable weed managers to be able to identify:

1. all vegetative and flowering parts of Sicilian Sea Lavender and Kudzu
2. the growth habit and preferred environment of Sicilian Sea Lavender and Kudzu
3. effective strategies to manage these two species and the constraints that can limit the successful implementation of these strategies.

The event was held on Thursday 9 November 2017 with a NSW Weeds Officers Association regional grant for $1,000 funding minibus and driver hire. 11 weed managers caught the bus

from Central Station to Saratoga where they met up with 6 more people from around the Greater Sydney region, 10 people from the Lake Macquarie and Mid-Coast regions, and our host, the ever-fabulous Paul Marynissen, Biosecurity Officer from Central Coast Council. After some refreshments - funded through the NSW Weeds Action Program Greater Sydney subprogram - Paul handed each participant a laminated information card that he had developed about Sicilian Sea Lavender for the event (Figure 1).

Figure 1: Photo of laminated information card produced by Paul Marynissen.

The event was attended by local and state government staff, ecological consultants, Bushcare volunteers and regional weed committee members. This event supported the exchange of ideas and knowledge between weed managers in the Greater Sydney, Lake Macquarie and Mid-Coast Council regions, thereby improving the skill and knowledge base for invasive species management. The tour provided weed managers with:

1. improved weed management skills gained through peer-to-peer learning
2. tools to identify Sicilian Sea Lavender and Kudzu year round, regardless of stage of growth
3. an opportunity to have comprehensive discussion regarding the characteristics and best practice management options for these two high risk species.

Participants were invited, through an evaluation form, to rate their skills at identifying these two highly invasive species prior before and after the tour. 14 people completed and returned forms. These are the responses:

	Before the study tour	After the study tour
Excellent		**6**
Very good		**8**
Good	**2**	
Fair	**6**	
Poor	**6**	

Participants were also asked who they would tell about what they had learned on the study tour. Responses included:

- contractors
- volunteers
- council staff
- drainage maintenance staff
- Bushcare newsletter
- the wider community
- Enviro Health teams that do education sessions at the wetlands with bird watching clubs
- council horticulture, garden & park teams
- Bushland team
- Bushcare supervisors to pass onto bush care volunteers
- land owners
- Natural Environment/Bush Regeneration staff within council
- field staff within our consultancy.

La Perouse Coastcare helped spread the word by doing a write-up about the tour, which can be found here: https://laperousecoastcare.wordpress.com/2017/11/09/sicilian-sea-lavender-kudzu-central-coast-field-trip/

Participants, when asked what they would do differently as a result of the trip, responded:

"*Prior to undertaking works at the various drainage outlets, visual inspection will be undertaken by to ensure no Sea Lavender is present in the designated excavation area. Any plants located will be flagged and notification sent to the Weeds Officer*."

"*Raise awareness of staff, contractors and volunteers. Monitor sea cliffs and coastline areas*."

"*Inspect saltmarsh for the Sicilian Sea Lavender*."

"*Have species on 'radar' during site inspections, especially through saltmarsh areas for Sicilian Sea Lavender*"

A great outcome for $1,000 investment!

No Space for weeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeds.