

NVA News



ALA Data

Since our inaugural newsletter was sent out in May this year the NVA team have been investing significant effort in checking and cleaning the Tasmanian ALA data (around 1.5 million records, not currently in the NVA), ready for upload on the NVA. We have also been adding the appropriate data licensing functionality to the NVA database structure to allow us to correctly ascribe incoming data with the associated licensing attribution. We are currently working on developing a specialized data loading tool to load the data into the NVA database. Once this tool is complete, we will begin to load the data. It is envisaged that data loading will begin in the next few months.

New Records

Over 76000 new species observation records have been added to the NVA since the 1st of May. A significant proportion of the new records (47000+) were reports of roadkill submitted via the [Roadkill app](#) and from records collected by the Dept. of State Growth. Another large data set (~11200 records) comprised sub-alpine and alpine vegetation records from Mt Field NP collected by Peter Minchin in the early 1980's.



Burnie burrowing crayfish (*Engaeus yabbimunna*). Photo: Nial Doran

iNaturalist

We have continued to harvest Tasmanian records from [iNaturalist](#) (usually on a bi-monthly basis). To be included in the NVA, records must be categorised as 'research grade' by iNaturalist, have a position accuracy of +/- 1000m or better and not be cultivated (i.e. not garden plants). So far, we have added around 10,300 iNaturalist records to the NVA.

Data Interpretation

NVA records are only indicative and they represent a snapshot in space and time.

With a few notable and very restricted exceptions, NVA species records indicate the 'presence' of species (not the absence). Where there are no NVA records of the 'presence' of a species it is tempting for users to interpret this as an actual absence of the species on the ground. However, an absence of records in any given area should only be interpreted as an absence of observations submitted to the NVA.

Conclusively demonstrating the absence of a species at a location is very difficult. To do so would require experienced observers to conduct repeated and comprehensive on ground searches using methods that have been demonstrated to reliably detect the species in question. Even then, if the species is small and/or cryptic, or only occurs seasonally, it may be quite difficult or impossible to reach a definitive conclusion regarding its 'absence'.

Presence observations also need to be interpreted carefully. For example, records must be considered in the context of time and species mobility.


NVA Evolution




The proposed revamp of the NVA (known as NVA Evolution) is still in the early stages of development. The project planning has been completed and the team have begun work on the foundations of the new system. In the coming months the team expect to build further on the basic framework and then, in the first part of 2020, begin to look at the design of the new interface. The aim is to provide a clean and intuitive interface for less experienced users but also provide access to more complex functionality required by power users.



Golden stag beetle (*Lamprima aurata*). Photo: Nuytsia, iNaturalist.

User Tips - Maps and Layer Management

The layer management area of the NVA maps is accessed by clicking on the green square  at the top right of any of the NVA map windows. In the layer management area, you can choose one of several base layers to display on your map (topographic map, state orthophoto, scanned 1:25000 maps etc.).

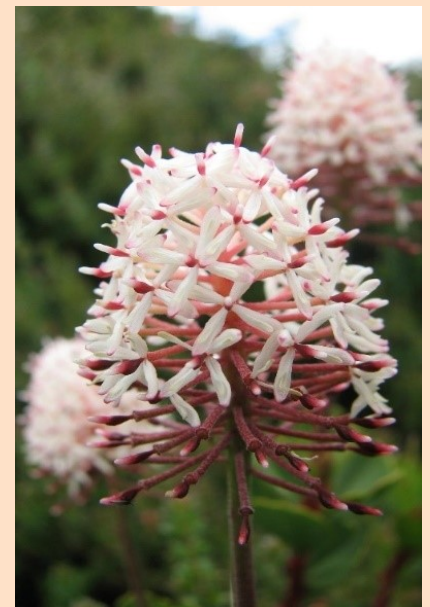
If you click on the **Add/Remove Layers** button to open the layer management pop-up window, you can search for a variety of available map layers (e.g. TASVEG, land tenure, reserves, bioregions, catchments, mining leases etc.) and add or remove them by clicking on the  or  next to each layer. You can change the order in which the layers are plotted (one on top of the other) by clicking and holding on the layers in the layer list and then dragging/dropping them up or down the list. You can turn layers on and off using the tick box next to each layer name. You can show a legend for each layer by clicking on the arrow  next to each layer name, and you will also be able to see a slider which allows you to make the layers more/less transparent.

Once you have the layers set up how you like them you can click the **Save Layers** button to save your preferences so that the same layers will be loaded every time you open an NVA map. Note that some layers are not displayed if you are zoomed out too far, so you may need to zoom in to get them to display.

A recorded observation of a mobile species at a location and point in time is not a guarantee that the same organism or species will be at that location at a future date, although the species may still be found in the general area.

The location of an NVA record should not be interpreted too precisely. If an NVA observation has been recorded nearby and within similar habitat to your area of interest, there is a reasonable likelihood that there may be other un-reported occurrences of the same species in the near vicinity, and that some of these occurrences may even be within the bounds of the area you are looking at.

NVA records must be carefully considered in the context of the species attributes, the time elapsed since the observation and any changes that have occurred in the landscape since that time.



Mountain rocket (*Bellendena montana*). Photo: D. Storey.

NVA Records and Forestry

By Dydee Mann, Ecologist, Forest Practices Authority

NVA records for threatened species are a vital part of understanding the distribution and habitat preferences of a species. Patterns in the occurrence of known records for a species can help predict other locations where it may occur. For example, overlaying all of the NVA records for the dwarf sunray daisy (*Triptilodiscus pygmaeus*) with the geology and vegetation layers of Tasmania shows the species has been exclusively found on basalt or dolerite in grasslands, grassy woodlands or rocky areas of the midlands. This suggests that anyone designing a survey to find additional sites for this species should focus on those particular geologies and vegetation types. On the flip side, it also suggests that anyone planning activities that may impact grasslands, grassy woodlands or rocky areas on basalt or dolerite geology in the midlands may need to consider their impacts on the dwarf sunray daisy.

Known records (NVA records) of threatened species also have a legal standing, in that they require protection under various pieces of environmental legislation. In a forestry scenario, NVA records for threatened flora and fauna are a vital part of the impact assessment of any proposed forestry activities like road building, quarry establishment or timber harvesting. When a forest planner is considering a forestry activity in an area, they must check what NVA records are present in the immediate area, as well as in the broader landscape. A threatened species record within the vicinity of the planned forestry activity signals a requirement to consider potential impacts to that species.

The way that a known record is managed in a forestry operation varies according to the species and its sensitivity to forestry, the type of record (e.g., nest vs. roadkill sighting), the record accuracy, the geographical area and the type of forestry operation. For example, for more disturbance-tolerant species, a simple buffer may be applied to the record, within which forestry activities cannot occur. Eagle nest records are treated differently and often require a 10ha buffer of intact native forest around the nest, and there may be additional restrictions on any forestry activity close to a nest during the 7-month long breeding season. For proposed forestry activities on the site of a very geographically restricted plant species, appropriate management may be to survey for additional populations and avoid direct impact to the known site.

NVA records are therefore a very powerful tool in the identification of threatened species habitat, the understanding of threatened species range boundaries, and for the management of threatened species sites in forestry operations. Next time you are out for a walk in the forest, consider recording your observations and submitting them either to the NVA directly or using the [iNaturalist](#) phone app, to help us in our understanding of where these species are and how to maintain them into the future.



Alpine coralfern (*Gleichenia alpina*). Photo: Tim Rudman