Questions and answers

Webinar 1: Baselines, drivers and trends for species occupancy and distribution

NSW Forest Monitoring and Improvement Program has committed to host annual stakeholder forums. This is an opportunity for people to learn more about the program, ask questions and provide feedback.

The Commission hosted a webinar in October 2022 with a panel of members from a team of scientists from leading universities, NSW agencies and the private sector.

This paper:

- Responds to questions not answered in the webinar
- Lists questions answered in the recorded webinar.

The webinar is available on the Commission's website.

Response to questions not answered in webinar

Question		Response
1	Wasn't repeat visits for monitoring a requirement of the RFAs 5 yearly reviews!?	No. The extended RFA in 2018 commits to five yearly reviews (including monitoring of sustainability indicators) and annual meetings between parties. It also requires NSW to develop and maintain a coordinated MER Plan, including the identification of research priorities, within the broader NSW Forest Management Framework across relevant forest management tenures and to support RFA outcomes reporting for ESFM [cl 8A(e)]. In 2020, a NSW RFA MER plan was approved by the NSW Forest Monitoring Steering Committee in collaboration with relevant agencies from the Australian Government. The plan sets out the array of existing forest monitoring and research already undertaken across NSW RFA region to support five yearly RFA reviews, including the work undertaken by the NSW Forest Monitoring and Improvement Program. The RFA MER plan is available at https://www.nrc.nsw.gov.au/rfamerplan/home
2	Are your maxent models and the data publicly available?	Yes. All project data and models are available here The community can interact with the project data through a webapp here

	Question	Response
3	Are these vastly improved models going to be used in timber harvest planning? Currently some very outdated models are being used. Great work team	Not at a stand-scale. While the occupancy models provide high-resolution spatial data, they are best used to inform the status of the species across a region or for a meta-population. The species occupancy models are aimed at providing a baseline against which occupancy and changes in occupancy over time can be assessed to determine if populations are increasing, stable or declining. The Coastal IFOA fauna monitoring program is now underway in state forests and will provide data to assess of a variety of species against the baseline occupancy models. In addition, the occupancy models can be used to assist in building the understanding of species and to better refine habitat models and species in need of further research and/or different management.
4	These occupancy models provide very high-resolution spatial data, but are they appropriate for stand-level management decisions or for regional and sub-regional pattern detection? That is, are they a tool for strategic, tactical, or operational planning?	The occupancy models are best used for region scale or strategic planning and decision making rather than stand-scale planning. As noted above, the models provide high-resolution spatial data and most importantly inform us of the status of the species across a region or for a meta-population. So yes, they are very appropriate for a regional or sub-regional scale. They also tell us about important covariates that are candidates for driving occupancy. These could be patterns of timber harvesting or fire, or extent of exclusion zones. When occupancy is mapped spatially and monitoring data is available in the future for further analysis, the maps/models can show us where occupancy in a region has changed over time. Other metrics such as density or activity, which are typically more difficult to collect, provide a more informative picture of what is occurring at local scales. Also, understanding what is taking place at a stand scale is sometimes best tackled via a formal experiment, where there are controls, before/after treatment measurements and replicates.
5	Has the team completed their assignment? Are they undertaking further work for NRC in this area?	Yes, the research team have completed their engagement to establish species baselines within the Coastal IFOA and RFA regions. This task fulfills requirements to establish species baselines under the Coastal IFOA (Protocol 38). Further work continues to monitor and model changes to species occupancy under the Coastal IFOA monitoring program overseen by the NRC. More information can be found at https://www.nrc.nsw.gov.au/ifoa-mer

Questions answered in webinar

	Question
1	Were reptiles all left off the abbreviated list of fauna for monitoring?
2	How can timber harvesting not drive habitat suitability when it affects hollow bearing trees that are so essential for so many species?
3	To what extent does constraining occurrence records to an administrative boundary (NSW State) suppress potential viable habitat? It would be interesting to compare these models with Australia wide projections.
4	Is there any information available on flora and fauna abundance in harvested vs unharvested forest, across different forest types?
5	It was mentioned that the Powerful Owls were detected more in autumn/winter and not in summer. Why is that?
6	In a world of increasing disturbances, we are also interested in ecosystem structure and function. Is the modelling of the plant data able to provide information on structure and function or composition only?
7	Are your maxent models and the data publicly available? Answered via chat: All the Biodiversity data is here. The community can interact with the data through a webapp here
8	It was mentioned Greater Gliders are found more in cooler climates, but they are abundant in Qld - just wondering if you considered the breadth of the survey sites that you used in the modelling for NSW? Did it adequately sample different parts of the landscape ie/ climates, terrain?