



## Forest Practices Authority (FPA)

The Forest Practices Authority (FPA) is an independent statutory body responsible for administering the Tasmanian forest practices system. The system regulates the management of forest and threatened non-forest vegetation on both public and private land.

The FPA employs specialists in botany, zoology, soil and water, geoscience and cultural heritage. The FPA conducts research and monitoring within the following programs:

- Biodiversity Program
- Earth Science and Cultural Heritage Program.

## *Forest Practices News*

*Forest Practices News* is a publication produced by the FPA which provides access to a series of articles highlighting a variety of research and monitoring projects along with insights into the other activities of the FPA.

The following article is an extract from ***Forest Practices News*** (May 2013 vol 11 no 4).

For further information and access to other articles please visit the FPA website ([publications/Forest Practices News](#)): ***click here***

# Managing our mature forests

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Tasmania has an impressive land-based reserve system. The latest state of the forests report documented that half of Tasmania's native forest is reserved (77 per cent in formal reserves and the rest in informal or private forest reserves). Despite this reserve system, it is still important that we manage habitat outside these reserves.

The current reserves are not evenly spread across the state but are largely found in the west. Not all reserves contain mature forest. Species with large home ranges

(e.g. masked owls) need suitable habitat widely spread across Tasmania in order to maintain viable breeding populations. For some species, including many threatened species, most of their geographic range or preferred habitat is located outside the current reserve system or on private land. Furthermore, the biodiversity of our forests can change over small distances, so we need to ensure we retain reserves throughout the forest estate in order to provide habitat for species sensitive to disturbance from forestry.



*Mature forest in the Styx Valley, with the Snowy Range in the background. Photograph by Nigel Richardson*

The objective of the Tasmanian forest practices system, as defined in Schedule 7 of the *Forest Practices Act 1985*, is to achieve sustainable management of public and private forests with due care for the environment. Different species use different elements of the forest, and so the full range of stand ages needs to be available in the landscape if we are to provide habitat for the full suite of species.

Mature forest, being forest older than 100 years, provides special features that are important for many species. Tree hollows are found in older trees and provide important roosting and nesting sites for a range of species. Large coarse woody debris is created when large trees fall, and the resultant rotting logs host a large number of fungi and invertebrates (e.g. beetles). Mature trees often have larger crowns than younger trees, and can provide more flowers which are an important source of food for some species (e.g. blue gum flowers for swift parrots). The large forked branches in older trees can provide important sites for species like eagles to construct their nests.

In many parts of Tasmania there has been a decline in the availability of these important habitat structures due to the progressive loss of older trees. These features or attributes can take more than 100 or 200 years to develop, which is longer than the

average harvest rotation interval. This means that we need to take special care when managing our forests to ensure we maintain mature forest both now and into the future. The importance of managing mature forests has been emphasised by recent reviews of the forest practices system, and by scientific research (including a recent study conducted by Forestry Tasmania in the southern forests – see page five in this issue).

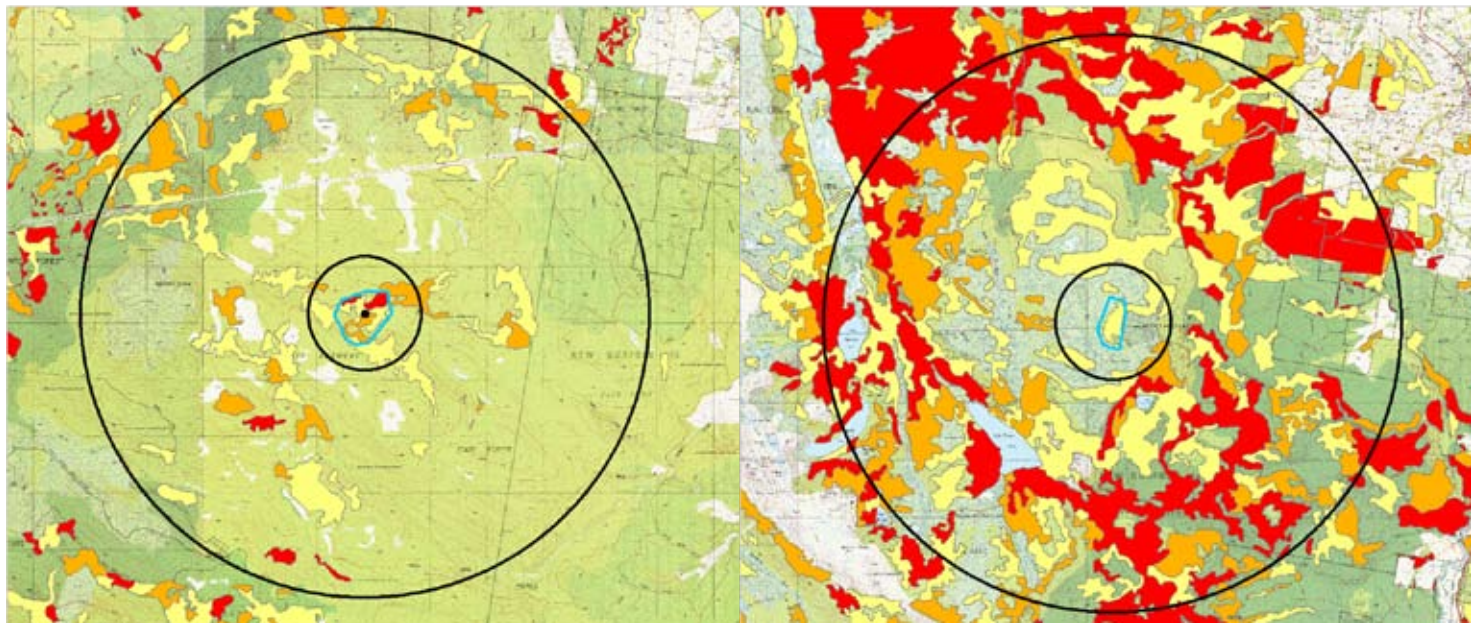
*‘We need to take special care when managing our forests to ensure we maintain mature forest both now and into the future.’*

The FPA has been working towards developing an approach for managing mature forest in Tasmania’s production forests. The aim is ‘to ensure a continued supply of mature habitat at multiple spatial scales, such that populations of species dependent on mature habitat are maintained across their range’. The FPA wanted to develop an approach that was ecologically meaningful (for multiple species), user-friendly, compatible with the forest practices system (e.g. scale of planning and applicable to all land tenures), that focuses efforts where it is most

needed and promotes regeneration in areas lacking mature forest.

In order to manage mature habitat across the landscape, it was first important to assess where the mature forest is. To achieve this, we used available data (courtesy of Forestry Tasmania and Private Forests Tasmania) to produce the Mature Habitat Availability Map (see [Fauna technical note 2](#) available on the FPA website). This map indicates whether the availability of mature eucalypt trees is expected to be high, medium, low or negligible in any particular area. The Mature Habitat Availability Map was the result of a study on tree hollows, and work is currently being done to assess the accuracy of the map. FPA will continue work to improve the accuracy of the map over time. Users can request a copy of the map from the FPA, or view the map for particular areas through the [Biodiversity Values Database](#) or the [Habitat Context Assessment Tool](#) ([www.fpa.tas.gov.au](http://www.fpa.tas.gov.au)).

Once this map was produced work started on developing an approach to managing mature habitat across the landscape. The management approach currently being developed focuses on both the amount and distribution of mature habitat. To do this it is proposed that areas within a 1 km radius of a planned operation should be managed for maturity, taking into consideration



*Figure 1. Two proposed coupes (blue lines), indicating the amount of high (red), medium (orange) and low (yellow) mature habitat availability within 1 km (inner black circle) and 5 km (outer black circle). The local (1 km) context of these proposed operations is similar, but the landscape (5 km) context is quite different.*



## Managing our mature forests (continued)

the availability of mature habitat at the landscape (5 km) and local (1 km) scales. We believe it is important that two spatial scales are considered because the local scale may indicate a relative abundance of mature habitat, but the landscape scale may indicate that this area is one of the last remnants of mature forest in that landscape (Figure 1). Alternatively, assessing at the landscape scale may indicate an abundance of mature habitat, but the local scale may indicate a 'hole' in mature habitat availability within a particular region.

The areas to be retained for mature habitat management should be the best mature habitat available, which in some instances will be the areas with lots of old trees and in other instances will be areas of young trees that do not provide a current source of mature habitat but should develop mature forest features in the future. The areas to be managed for mature habitat can be located within or outside the proposed operation area. Areas to be managed for mature habitat are intended

to be maintained in the long term (at least 100 years). However these retained areas are not reserves, in the formal sense, and therefore the areas managed for mature forest can change over time.

Further details on the proposed approach to managing mature forest can be found on the FPA website ([www.fpa.tas.gov.au](http://www.fpa.tas.gov.au)). The current tools and approach focus on coupe-level planning, although the FPA is exploring a way for the approach to be applied at a more strategic landscape-scale (e.g. in three-year planning on State forest).

The management approach was developed using information in the scientific literature, expert opinion, and an understanding of the forest practices system. Feedback from practitioners has been used to adjust the proposed management approach, and will continue to do so as required as part of FPA's adaptive management policy. The proposed approach has been submitted to the Board of the FPA for endorsement as 'best practice'. The board has sought

advice from the Forest Practices Advisory Council on the social and economic impacts of the proposed management, and from the Threatened Species Scientific Advisory Council on the science behind the approach. The status of this proposed management approach can be monitored by checking the FPA website.

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### References:

*Fauna technical note 2*: [www.fpa.tas.gov.au/\\_\\_\\_data/assets/pdf\\_file/0019/68203/Fauna\\_Tech\\_Note\\_2\\_Mature\\_habitat\\_availability\\_map.pdf](http://www.fpa.tas.gov.au/___data/assets/pdf_file/0019/68203/Fauna_Tech_Note_2_Mature_habitat_availability_map.pdf)

Biodiversity Values Database: [www.fpa.tas.gov.au/fpa\\_services/planning\\_assistance/advisory\\_planning\\_tools/Biodiversity\\_values\\_databaseHabitat](http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/Biodiversity_values_databaseHabitat)

Habitat Context Assessment Tool: [www.fpa.tas.gov.au/fpa\\_services/planning\\_assistance/advisory\\_planning\\_tools/habitat\\_context\\_assessment\\_tool](http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/habitat_context_assessment_tool)