

Protecting biodiversity in production forests



Key points

- Tasmania has a large formal reserve network primarily established to protect biodiversity.
- Sustainable Timber Tasmania complements the formal reserve network by informally reserving additional areas of production forest for biodiversity, including threatened communities and species habitats.
- During planning, we assess potential harvest areas for significant or high conservation values (environmental and cultural) and apply management prescriptions during operations to protect these values.

Multi-scaled approach to biodiversity conservation

Sustainable Timber Tasmania identifies areas for harvest and begins its planning processes several years before harvesting takes place. Biodiversity is a key environmental value considered in these planning processes through the Forest Practices System and our own Forest Management System.

Biodiversity is managed at multiple spatial scales, from operational (individual coupes) to the landscape scale in the Permanent Timber Production Zone (PTPZ) land. Managing biodiversity values at larger scales can be more relevant to the needs of some species, especially wide-ranging species, as it produces better conservation outcomes than traditional planning, which focuses at the operational scale.

Landscape scale applied to all public land

Tasmania has a large reserve system primarily set aside to protect biodiversity across the landscape. There is a Regional Forest Agreement in place across Tasmania that applies to private and public land managers. The Agreement established a Comprehensive, Adequate and Representative (CAR) reserve system which is designed to be:

- **Comprehensive** - Includes the full range of forest communities and ecosystems at a bioregional scale;
- **Adequate** - Reserves large enough and configured to maintain ecological viability and integrity of populations, species and communities; and
- **Representative** - Conserves diversity at a finer scale, to encompass the variability of habitat within ecosystems.

Sustainable Timber Tasmania maintains and continues to contribute to the CAR reserve system on PTPZ land by reserving areas of production native forest for biodiversity conservation. These reserves provide habitats for many plants and animals beyond, adjacent to and within production zones. Reserves in and adjacent to production zones allow biodiversity to remain nearby and move through the production forest and help re-colonise harvested areas as they regenerate.

Sustainable Timber Tasmania researcher monitoring sounds in the forest to collect data relating to wildlife at this location.



Biodiversity planning at multiple scales

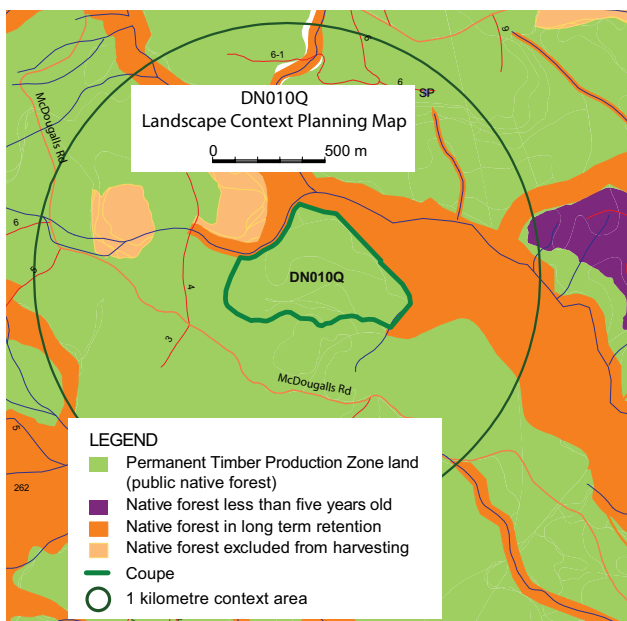
Our Landscape Context Planning System incorporates landscape ecological principles into coupe planning. This gives our planners tools to take a landscape approach. This includes evaluating the context of harvest operations, in terms of the amount of habitat and the cumulative effect of past operations. At a mid landscape scale (~ 20,000 ha), we are maintaining and recruiting appropriate levels of mature habitat, such as trees with hollows, standing dead trees and coarse woody debris. Where low levels of mature habitat occur at the mid landscape scale, the majority of existing mature habitat will be maintained by setting restrictive harvest limits.

At a local scale, we routinely plan for biodiversity at a 1 km planning unit scale, whereby at least 20 percent of native forest on public land is managed in reserves or retained unharvested for at least another 100 years. This new approach to retention forestry takes a risk-based approach and is supported by recent leading research in Tasmania, which showed that species were able to recolonise regenerating forest after clear-felling, provided there was sufficient mature forest in the surrounding 1 km landscape.

Operational scale

Sustainable Timber Tasmania checks and manages the planned operational areas for threatened species and high conservation values by:

- Searching known values recorded on our own and other natural values maps;
- Professionally trained Forest Practices Officers walking through and surveying coupes by mapping areas of threatened species potential habitat; and
- Designating areas containing habitat values to be retained unharvested for the long term.



Example of a Landscape Context Planning map. This information can help planners decide on the optimal areas of native forest to set aside for long-term retention to maintain biodiversity and threatened species, while allowing Sustainable Timber Tasmania to meet its wood supply obligations.



Giant freshwater crayfish (*Astacopsis gouldi*). Largest freshwater crayfish in the world, and is endemic to rivers in northern Tasmania. Slow-growing and long-lived, growing to around 2 to 3 kg, but has been reported to grow up to 6 kg in size. Naturally occurring in streams and lakes. Indigenous name 'Tayatea'.



Giant velvet worm (*Tasmanipatus baretti*). Caterpillar-like, with two antennae, soft velvety skin and 15 pairs of legs. Pink colour and up to 75mm in length when walking. Tasmania's largest velvet worm, endemic to northeast Tasmania, inhabiting decaying eucalypt logs.