Phil and Brett find the Marrawah skipper flitting about in unexpected places.

Marrawah skipper (Oreisplanus munionga larana) was listed in 2001 as an endangered species under the Tasmanian Threatened Species Protection Act 1995. It is known from only a handful of localities in coastal far northwest Tasmania where most of the known populations are considered to be threatened by cattle grazing and/or landclearing.

Marrawah skipper appears to have been living a fairly low profile existence until recent inspections by the Forest Practices Authority near Marrawah turned up several new sites. Brett was the Forest Practices Officer for the proposed harvesting operations where the species was found. Surprisingly Marrawah skipper was found in oldgrowth *Melaleuca ericifolia* (swamp paperbark) forest and wet eucalypt forest, mainly dominated by *Eucalyptus brookeriana* (Brookers gum). All previous records of the butterfly were associated with non-forest sedgeland or non-commercial *M. ericifolia* scrub/forest.

Another surprise came early this year when the FPA discovered Marrawah skipper at Penguin. Brett was again the FPO, preparing a Forest Practices Plan for the enlargement of an agricultural dam just south of Penguin.

Until recently the Marrawah skipper was only known from around Marrawah, in the far north-west of Tasmania. A small population was known from Stanley but by 2002 this population was considered to be extinct as a result of cattle grazing. The
discovery of the species at Penguin extends the known distribution of the butterfly by over 100 km. The discovery also provides clues to the possible historical distribution of this species. Marrawah skipper may have been more widely distributed in coastal northwest Tasmania and eliminated in the wake of broadscale landclearing for agriculture in coastal areas. Dedicated surveys for Marrawah skipper in potential habitat between Marrawah and Penguin may reveal further remnant populations, and proposed landclearing and forestry operations between these localities will now need to consider this species.

Caterpillars of Marrawah skipper feed on Carex appressa (cutting sedge). To date they have been found in C. appressa sedgeland, M. ericifolia scrub/forest and Wet E. brookeriana forest. At Penguin, the habitat is disturbed by weeds and agricultural development, though C. appressa dominates the margin of the dam. Surrounding intact vegetation is Dry E. obliqua (stringybark) forest. Around Marrawah, C. appressa can proliferate where the overstorey vegetation has been removed and the butterfly survives in several localities where weeds are common, such as along an excavator track adjacent to the Welcome River. In the light of new information, potential habitat of Marrawah skipper will be expanded to include any vegetation type, in coastal northwest Tasmania, dominated by C. appressa or with an understorey dominated by C. appressa.

Adults of Marrawah skipper are on the wing from mid January to mid February. For the remainder of the year the species is present as eggs, caterpillars or pupae. Adult females lay single eggs on the leaves of C. appressa. After they hatch the caterpillars feed at night and during the day rest in cylindrical shelters. The shelters are constructed by joining several leaves of the foodplant together with silk. Pupation takes place within the shelter, probably in early January. The adults stay close to C. appressa plants and have a preference for everlasting daisies as a nectar source. The presence of Marrawah skipper can be identified by the characteristic adult or outside the flying season by the characteristic tube shaped shelters that are found only on C. appressa.

With the discovery of Marrawah skipper in the thick of commercial forest it became a matter of urgency to develop prescriptions for the butterfly’s conservation in forestry operations (any prescriptions require endorsement by the Threatened Species Unit, DPIWE). We prepared prescriptions for protecting known butterfly sites and developed a method for minimising the impact on potential habitat during harvesting operations. To assess the efficacy of prescriptions we proposed the FPA undertake monitoring during an initial operation, and monitoring post-harvesting to guide refinement of the prescriptions.

Under the Regional Forest Agreement, planning of forestry operations on private land that involve under-reserved and threatened forest communities, and/or priority species (mainly threatened forest dependant species), are referred to the Private Forest Reserves Program (PFRP). The PFRP negotiates with private landowners for the inclusion of important areas into the CAR reserve system. The areas proposed for harvesting at Marrawah support important forest communities such as oldgrowth M. ericifolia forest and species such as Marrawah skipper, and were referred to the PFRP.

Negotiations between the PFRP and the respective landowners are likely to result in the inclusion of these areas in the Tasmanian CAR reserve system, which is an ideal conservation outcome for Marrawah skipper.

However, our investment in detailed surveys for Marrawah skipper in the proposed operations and in the development of prescriptions for the species has not been wasted. New sites will be discovered in forestry areas and operations will be proposed near known sites. This unexpected limelight for Marrawah skipper (or should it be the ‘Marrawah to Penguin skipper’) led us to train FPOs working in far northwest Tasmania in the identification and management of potential habitat.

Meanwhile at Penguin, the Threatened Species Unit (TSU) has given Brett the responsibility to oversee measures to conserve existing Carex habitat and establish additional habitat around the new dam. As the butterfly population at the dam is very small, the TSU have required that a survey be undertaken in the local area for additional populations. This work, combined with ongoing monitoring by the TSU, will provide valuable information on the success of habitat and caterpillar translocation, and the ability of the species to colonise new habitat. Further survey of the local area may also reveal significant new populations of the butterfly.

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Isobel Stanley talks to the Editor about her approach to the forest practices system in her new role as chair of the FPA board of directors.

Isobel, you became Chair of the FPA Directors in July this year. Could you tell us a little of your background and what encouraged you to accept the role.

I have been working in the environmental impact assessment areas for approximately 30 years. The work has covered

- on ground environmental investigations during my work in marine science in Scotland and the Middles East;
- a period within the Tasmanian Government environment department during which I was Manager of the Industrial Operations Branch which worked with Tasmanian industry to improve environmental performance;
- six years as an environmental manager in the mining industry at the Mount Lyell Copper mine and at Pasminco’s Hobart Smelter; and finally
- environmental consulting where my work has covered a wide range of projects including the mining industry, horticulture, government and overseas projects.

My work has proved to me that 99.5% of people want to do “the right thing” when it comes to the environment. In my experience there is only a small minority who deliberately pollute or deliberately cause impact on the environment.

What do you see as the strengths in the forest practices system?

I am a firm advocate for giving people the right information and tools to help them do a better job. This is where the FPA’s emphasis on continuous improvement through improved research, training and education will pay dividends. People at all levels in the industry from managers to workers on the ground to contractors to transporters need to be involved in training and education programs to ensure everyone understands the requirements of the Forest Practices Code and really commits to it.

The FPA believes in a cooperative approach but cooperation is two way – it requires buy in from the industry and a dialogue to ensure continuous improvement is a business goal. Just getting over the line is no longer good enough for the community. People in Tasmania are demanding high standards of our forestry industry.

Have you any comments on the way you see forestry in Tasmania developing in the future?

Over the last thirty years or so there has been an increased focus on environmental protection throughout the world and the community has demanded more regulation and more information from businesses.

A large number of global businesses are now more open about their environmental performance and are taking a pro-active approach in dealing with their communities. This open door approach has fostered an improved acceptance of these industries operating in the community.

The increased penalties under recent changes to the legislation remain the final deterrent for operators who do the “wrong thing” and these will unfortunately always be needed. Although it is my greatest wish that punitive measures need not be used the FPA will not hesitate to use these penalties where necessary.

The FPA supports open communication with the community and will continue to encourage the forestry industry to improve involvement, cooperation and dialogue with the community.

The FPA is considering ways that industry which goes above and beyond a minimum standard can be recognised and rewarded.

The directors of the FPA join the Minister in launching the FPA in July this year: from left Alan Watson, Graham Wilkinson, Meredith Roodenrys, Mark Leech, Peter Davies, Penny Wells, Isobel Stanley and Bryan Green (Minister for Infrastructure, Energy and Resources).
Fred and Mark tour around the State to peddle their new botany manual.

It was the last week of September, and the ‘Tour de Plants’ was on the move – travelling the highways and byways of Tasmania, conducting courses and field days on the FPA’s flora planning tools and the FPP flora evaluation process.

The peloton swept through Geeveston, Orford, Launceston, Deloraine and finally Ridgley, before Mark Wapstra and Fred Duncan divested themselves of their green jerseys and returned to Hobart after a long, successful ride.

An average of 25 people attended each one day course – mainly FPOs but also other forest planners and some DPIWE botanists. Morning sessions demonstrated the use of the recently released Forest Botany Manual and other flora planning tools including: Flora Technical Notes; a gallery of plant images (on the FPA website); and profiles of threatened plant species (on the DPIWE website). This session also covered procedures for assessing vegetation in FPP areas, completing FPP Flora Evaluation Sheets and liaising with the FPA Ecology Program.

Field trips each afternoon provided practice in identifying forest communities, developing management prescriptions for threatened species, and dealing with other botanical issues that need to be considered in the ever more complex business of preparing FPPs. The convoys winding along the forest roads to the field sites were worthy of SBS coverage, as strategies unfolded to secure the coveted dust-free positions at the front of the peloton.

For FPOs and other interested parties who missed out on the 2005 ‘Tour de Plants’ – further courses are scheduled for February/March 2006. Those intending to take part in next year’s event could gain a winning edge, without fear of penalties or disqualification, by checking out the Forest Botany Manual and other planning tools on the FPA website.

There is a lot of organisation that goes into a major sporting event like the ‘Tour de Plants’, and we were grateful for the efforts put in by the FPA support team and in particular Anne Chuter of the FPA Botany Program. Finally, a big thank you to all course participants for the useful discussions and the high levels of enthusiasm and skills demonstrated at all stages of the Tour.

More information on the Forest Botany Manual…

The Forest Botany Manual is written to help forest managers and planners, particularly Forest Practices Officers, to:

- identify sites and issues relevant to sustainable management of Tasmania’s forest vegetation (plant species and communities);
- take account of the flora requirements of the Tasmanian Forest Practices Code, RFA and other legislation and policies.

The Manual is divided into an introductory module (Module 1) and regionally-based modules (Module 2–8).

FPOs should use the appropriate regional module to assess vegetation that could be affected by forestry operations, and to determine if specialist advice is required for sites with the potential to contain plant species, communities or other flora values with a priority for conservation. The format of the regional modules follows the format of the Flora Evaluation Sheet that needs to be completed when FPOs prepare a FPP.

The Forest Botany Manual is supported by information on the FPA website. Flora Technical Notes also cover aspects of vegetation management in Tasmanian forests. The Manual provides links to other useful websites.

Comments about the format or content of the Manual should be referred to
Editors’ corner

Forest Practices News provides a means for communicating new ideas and developments among those interested in the sustainable management of Tasmania’s forests. We aim to provide practical information, which is why it’s great that this edition has a few articles from people working hands-on in forest management. Please contact us if you have some experiences to share.

We welcome both feature articles and shorter contributions of even just a paragraph or two. Please include illustrations and a photo of yourself with your contributions and ensure that figures/pictures are sent as separate files and not embedded in Word documents.

To make it clearer for contributors, we have decided to set some dates for contributions to reach us by. The deadlines to get articles to the editors are:

- December issue: mid-November
- March issue: mid-February
- June issue: mid-May
- September issue: mid-August

 Contributions can be supplied either as hard copy or electronically. If forwarding material electronically, the address is:

Christine.Grove@fpa.tas.gov.au

The FPA has recently constructed a completely new website. It contains much more information than the previous FPB website, particularly on how the forest practices system works. If you need to find out any information about the system, check out the website:

www.fpa.tas.gov.au

Christine Grove and Nathan Duhig

Forest Practices News Editors

Deadline for contributions for the next FPN:

Early December

Phil Bell, formerly an ecologist with the FPA, has taken up a new position with the Threatened Species Network, DPIWE. We are very sorry to see him go. Phil made himself a very comfortable home at the FPA and became adept at digging himself into, and out of very big holes. Sadly he left before building us a new tea room. We wish him all the best at his new wallowing pool. Photo: Niall Doran.
Niall and Graham provide some insights into the legislative pitfalls awaiting the unwary FPO.

Forest Practices Officers (FPOs) are providing increasing levels of advice to land owners and other stakeholders outside areas that would be considered traditional forest industry operations. This advice may include the preparation of Forest Practices Plans (FPPs) for landholders who are clearing land for pasture or dams, and/or who are planning to subdivide and develop land for housing.

This expansion in the role of FPOs is the result of changes to the Forest Practices Act 1985 in recent years and how it interacts with other legislation and policies within the State. For example, FPOs are already aware of what this means for priority non-forest vegetation communities, and how this has been incorporated into coupe planning and the assessment of special values.

Other issues arising from the expanded role of FPOs are less well known, and in some situations may pose potential traps for the FPO and/or his or her client. Complications may arise due to other legislation or planning requirements that FPOs would not normally encounter in the course of standard coupe planning within the forest industry, but which may apply outside of it. FPOs are not expected to be experts on legislation or processes beyond the forest practices system, but they do need to be aware of when landholders may need to take such things into account.

A recent example

The Forest Practices Authority (the FPA) undertakes regular investigations into issues arising under the Forest Practices Act, ranging from differing interpretations and concerns to alleged breaches and mishaps. Recently the FPA concluded an investigation in co-operation with the Threatened Species Unit (TSU) of the Department of Primary Industries, Water and Environment (DPIWE) and in parallel with an investigation by the Department of Environment and Heritage (DEH) in Canberra. The investigation has resulted in the FPA imposing a fine of $5,000 and a requirement on the landholder to protect the relevant threatened fauna habitat from further disturbance.

During the investigation, an experienced FPO (not involved in the matter under investigation) was working in adjacent areas. The FPO had provided landholders with advice that was consistent with the Forest Practices Act, but it became apparent that the advice was unintentionally inconsistent with both the State Threatened Species Protection Act 1995 (TSPA) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBCA).

The problem had arisen because most threatened species prescriptions and procedures developed under the forest...
The problem had occurred. This in turn allowed all parties to discuss the situation, work out how it had arisen, develop a solution and provide the landholders with corrected advice. It also identified an area of potential confusion that needs to be addressed within the forest practices system, especially as non-forest industry FPPs become more common.

State requirements

The forest practices system provides a high level of assessment for forest areas subject to clearing activities, including both actual and potential special values as well as a detailed method of examination for the area to be affected. It allows for statewide consistency of assessments, and accreditation and accountability on behalf of the FPOs undertaking them.

The forest practices system is especially effective because it rolls the relevant standards and requirements of many other State laws into one single system for the management of commercial forestry. This doesn’t mean that the other laws do not apply: instead, the system has been developed to try to meet the requirements of these laws while giving FPOs a one-stop process for taking them into account.

This means that FPOs do not need to be directly familiar with a multitude of different Acts and requirements – instead they simply need to know the forest practices system which tailors the relevant parts of these Acts and requirements to commercial forestry. In contrast, other land management activities may or may not have established planning systems in place, and different laws often need to be considered and addressed separately by the parties involved.

The TSPA is a good example. This Act dovetails closely with the Forest Practices system and – as FPOs are well aware – specific prescriptions and procedures relating to threatened species are incorporated within the special values assessment for coupes under the Agreed Procedures between DPIWE and the FPA. In contrast, the link between the TSPA and other planning systems is not nearly as well developed, although some progress has been made in recent years.

FPOs therefore do not need to know legislation such as the TSPA directly, but instead need to know how it is applied through the requirements of the Forest Practices system. However, they also need to be aware that this system and its interaction with other Acts were specifically developed for traditional forest industry activities and so may not directly apply to non-commercial operations or to non-forested land within or adjacent to a coupe.

Examples of situations where the current standard prescriptions may not be appropriate for non-commercial forestry include:

• The construction of in-stream dams

Different impacts: cattle in wet areas provide a continuous churning and/or compaction of soil, with different long-term effects on galaxiids, burrowing crayfish and other threatened species than periodic or one-off disturbances such as forestry (Photo: Niall Doran).
Providing advice to landholders: important traps to avoid! (continued)

involving the clearing or flooding of riparian vegetation that would otherwise be fully protected within streamside reserves under the Forest Practices Code;

- Clearing for agriculture or subdivision involving a total and permanent conversion of land use (largely without the strategic landscape-scale planning that is discussed between DPIWE, FPA and Forestry Tasmania for plantations on State Forest);

- Situations where subsequent planned activities pose hazards or disturbance risks that would be avoided or better managed following harvesting in more traditional forest operations. For example, grazing by cattle poses very different conservation impacts to logging, and so may require different planning and management for TSPA and EPBCA listed species before clearing is undertaken. Similarly, disturbance buffers to protect eagle nests during the breeding season are larger than the boundaries of nest reserves alone, and are much harder to enforce for a new subdivision (with year-round residents and higher levels of activity and access) than for a regenerating coupe in an isolated area.

For the above reasons, FPPs provide a useful means of assessing special values for non-commercial clearing, as well as being a legal requirement (over the established thresholds) where forest is involved. However, FPPs do not replace other assessment requirements in all cases, and FPOs must be careful that proponents or clients are not inadvertently left open to potential breaches of other legislation or systems where relevant.

The primary role of FPOs is to ensure that the requirements of the Forest Practices Act and the Forest Practices Code are met. FPOs are not responsible for knowing, applying, enforcing or advising in detail on other Acts outside the forest practices system, but in preparing an FPP for non-commercial forestry they should be mindful that other legislation may apply and they should advise the landholder accordingly. FPOs may simply need to direct landholders to other agencies or consultants for advice or confirmation of what may be required, or to at least recommend that this should be considered. The potential trap under such circumstances is advising the landholder that an FPP is the only requirement that he or she has when this may not be the case.

**Commonwealth requirements**

Commonwealth law is one area FPOs may be unfamiliar with, as the EPBC Act was brought into being after the Regional Forest Agreement (RFA) was signed. Through this Agreement, the Commonwealth approved the forest practices system for the regulation of commercial forestry in Tasmania. As a result, assessment requirements under the EPBC Act apply to other developments and issues, but do not directly apply to commercial forestry operations as defined under the RFA. The forest practices system still protects values identified in the EPBCA, however, as its preceding legislation was in place and was taken into account in the RFA.

A potential trap for FPOs is that the EPBCA may apply directly to clearing that does not fall within the scope of commercial forestry (e.g. clearing for dams, agriculture or subdivision). This is because changes to the Forest Practices Act to encompass such activities were made after the RFA was completed, and so were not in the intent of the RFA when it was signed between the State and the Commonwealth. The possession of an approved FPP is therefore still a State legal requirement under the Forest Practices Act for such activities, but it does not replace other assessment requirements that may also apply.

The EPBCA contains some similarities to State Acts such as the TSPA, although it doesn’t focus on the presence of threatened species per se but instead on whether an operation will have a significant impact upon that species. Although this sounds as though the EPBCA provides more leeway than the TSPA in circumstances where threatened species are present but impacts may not be major, it must be noted that the onus is on the landholder/proponent to ensure they make the right assessment. Substantial penalties may be imposed if they get it wrong.

Landholders therefore rely heavily on being provided with appropriate advice, and FPOs can help by directing them accordingly. FPOs should also be aware that Tasmania has made a commitment to make proponents aware of their obligations under the EPBCA. This commitment has been made through the Bilateral Agreement on natural heritage between the Commonwealth and the State.

**What to do – a quick checklist**

Clearly it is not desirable for a landholder to breach either State or Commonwealth legislation outside the forest practices system due to advice provided within it. Equally, FPOs are not expected to be able to provide definitive comment on all of the legislation in place within Tasmania. Instead, it is recommended that FPOs remain aware that other issues may be involved, and advise landholders that they may need to seek additional information from other agencies or consultants in some cases.

The following guide can also be used in providing advice until more information is available:

- **Forested areas subject to commercial forestry activities**: deal with as normal.
- **Forested areas subject to non-commercial forestry**, including non-industry operations where forestry is not the primary aim (e.g. farm dam construction, subdivisions, clearance for agriculture, etc): deal with as normal, but be aware and advise...
that other legislation, values, requirements or assessments may apply. In such cases, further advice or consultation with FPA over additional requirements or the tailoring of prescriptions may be needed, and/or the landholder should be advised to seek further information about responsibilities beyond the Forest Practices Act.

• Non-forest areas (including both threatened and non-threatened vegetation):
  • Within coupe: assess special values for incorporation into the FPP, but be aware/advice that other legislation, values, requirements or assessments may apply as above.
  • Outside coupe: be aware/advice that other legislation, values, requirements or assessments may apply as above.

It is important to note that although other legislation or planning requirements may apply to non-commercial forestry or non-forested areas, it does not mean that this will definitely be the case or that impacts will be significant in all or most such situations. However, landholders need to be aware that they should take such considerations into account, as lack of awareness of laws such as the EPBCA is not a defence if a breach occurs.

The future

Regulatory systems work best when all legal and policy requirements are delivered in an integrated way. Systems that require separate planning approvals under multiple Acts risk complicating the process with inefficiency, duplication, frustration and additional costs for both the applicant and government (ultimately the tax-payer). The checks and balances provided by different systems therefore need to be better merged to remove unnecessary confusion and to simplify these processes for landholders and practitioners on the ground. Such change does take time, unfortunately, and the parties involved need to be aware of current legal requirements and obligations in the interim.

FPOs are aware of the changes that have been made to the Forest Practices system over the years in order to ensure that new and emerging legislation is delivered as far as possible under a streamlined and efficient ‘one-stop shop’. Our challenge is to continue with this approach wherever the Forest Practices system is used as the primary planning system for activities within forested and associated ecosystems. The bigger challenge is for governments to adopt similar integrated and efficient planning systems for non-forested ecosystems - watch this space!

Further information:
If you have a situation where you think that landholders may be operating under incorrect or incomplete information, or you want further advice on the above issues, please contact the authors or the following bodies. Further information can also be provided in future FPA training or refresher courses.

• Forest Practices Authority:
  info@fpa.tas.gov.au
• Threatened Species Unit – DPIWE
  Sally.Bryant@dpiwe.tas.gov.au
• Authors’ contacts:
  Niall.Doran@dpiwe.tas.gov.au
  Graham.Wilkinson@fpa.tas.gov.au
Most of Tasmania's wattle species were described in the first half of the 18th century, many of which would be familiar to most Forest Practices Officers (FPOs). It seems surprising that it took until 1974 for a very distinctive shrubby species to be described. Dennis Morris (of the Tasmanian Herbarium) described *Acacia pataczekii* (fondly known as wally's wattle) from material collected by Wally (Wolfgang) F. Pataczek, then a forester with the Forestry Commission in the Eastern Tiers area who discovered the species in the early 1970s in the Tower Hill area.

And now, in 2005, another distinctive shrubby species of wattle has been described by Alan Gray (of the Tasmanian Herbarium). Closely related to *A. riceana* (which foresters who work on Bruny Island and in the Southern Forests will be familiar with as the tall arching shrub of wet forests), the species first came to the notice of Landcare workers in the lower Derwent River catchment area in the late 1980s. The new species is now known to occur on the banks of the River Derwent (and some of its tributaries in the Plenty and Tyenna River systems), usually within the first few metres of the vegetation close to the streambank. It also has some disjunct sites in the Prosser and Carlton River systems in the Buckland-Orford area.

The new species may qualify for listing on the Tasmanian *Threatened Species Protection Act* 1995. Most forestry activities are unlikely to affect the species in most circumstances because it will usually occur well within streamside reserves required under the *Forest Practices Code*. The main threat to this species is from agricultural activities and even weed eradication activities because the species often occurs with invasive species such as blackberry and willow.

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References

Above: Sprig of *Acacia derwentiana* - note the long and unclustered phyllodes.
Left: *A. derwentiana* on the left, *A. riceana* on the right. Note the different length phyllodes (longer in *A. derwentiana*) and degree of clustering (denser in *A. riceana*).

*Acacia derwentiana* is distinguished from the closely related *A. riceana* by having well-dispersed (rather than tightly clustered) and longer (2-35 mm long, about twice as long as *A. riceana*) phyllodes. For anyone who wants to see the species, the most convenient spot is at the rough car park on the western bank of the River Derwent on the Glenora Road just south of the railway bridge – you can't miss it if you follow the short rough tracks down to the river bank. Typical habitat of *Acacia derwentiana* along the upper reaches of Tea Tree Rivulet south of Buckland (bottom photo). The species is growing on the streambank and does not extend beyond into the surrounding forest.
## Forward Training Program – Forest Practices Authority

Confirmed and proposed training 2005/06

<table>
<thead>
<tr>
<th>Course (Contact)</th>
<th>Timing</th>
<th>Duration</th>
<th>Location</th>
<th>Course Content</th>
</tr>
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<tbody>
<tr>
<td>Karst (Nathan Duhig)</td>
<td>To be advised</td>
<td>1 day</td>
<td>Various</td>
<td>Field interpretation of karst issues for supervisors and contractors</td>
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<tr>
<td>Forest practices training for supervisors (Chris Mitchell)</td>
<td>21–24 November 2005</td>
<td>4 days</td>
<td>Orford</td>
<td>General training in forest practices for forest industry supervisors</td>
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<td>Fauna field day (Mark Wapstra)</td>
<td>February 2006</td>
<td>1 day</td>
<td>To be advised</td>
<td>Accreditation in eagle nest search methods and nest activity checking methods</td>
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<tr>
<td>Forest practices training for supervisors (Chris Mitchell)</td>
<td>May 2006</td>
<td>4 days</td>
<td>To be advised</td>
<td>General training in forest practices for forest industry supervisors</td>
</tr>
<tr>
<td>Landscape management workshop (Bruce Chetwynd)</td>
<td>To be advised</td>
<td>1 day</td>
<td>To be advised</td>
<td>Train key officers involved in regular landscape analysis, including those using 3D landscape simulations</td>
</tr>
<tr>
<td>Quarry Forest Practices Officer (Chris Mitchell)</td>
<td>Winter 2006</td>
<td>2 days</td>
<td>To be advised</td>
<td>Train quarry managers who will then be given the authority to certify FPPs for quarries</td>
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<tr>
<td>2006 Forest Practices Officer course (Chris Mitchell)</td>
<td>Winter/ Spring 2006</td>
<td>12 days total</td>
<td>Various</td>
<td>Pre-requisite course for appointment as FPO</td>
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</tbody>
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1 Course will be run jointly by Forestry Tasmania and Forest Practices Authority and is dependent on demand.

FPA Director, Mark Leech, is about to lose his flowing locks and trademark facial stubble. Mark is seeking sponsors for this clearfelling operation, with donations being used to support victims of the current terrible droughts in Malawi, in south-central Africa. Just $20 can provide grain that will maintain a family for 6 weeks.

Mark and his family have been involved in relief activities in Malawi for many years. If FPNews readers want to contribute to Mark’s shiny new look, they can contact him on mleech@iinet.net.au. After we’ve seen the end result, there is a fair chance that people will also pay Mark to promote some vigorous regrowth!

(Drawings by Fred Duncan)
Mark points out the difference between two species of Senecio, one common and one threatened and both easily mistaken for the other.

On a recent field inspection of a proposed coupe in the Huon District with FPOs Terry Ware and Chris Bond, my eye was caught by a swathe of bright yellow flowers in a recently clearfelled and burnt (and in parts cultivated and planted) coupe. On closer inspection, the yellow mass belonged to thousands of individuals of Senecio velleioides (forest groundsel). Our quick estimation is that the population perhaps occupied over 70 ha of disturbed ground, and was most abundant in areas that had been burnt, spot cultivated and planted with Eucalyptus nitens. The species was entirely absent from nearby undisturbed wet sclerophyll and mixed forest.

Senecio velleioides is a threatened species occasionally encountered by forest planners accessing threatened flora databases. However, the species is often not present at the listed site because it is a short-lived (although often quite tall, up to 2 m) herb that colonises disturbed ground. Its seed, like most composite herbs and shrubs is produced in masses and is transported by the wind. To the untrained eye, the species would belong to the group of plants that are the early colonisers of disturbed sites and would often be referred to as “fireweed”. It differs from the more common Senecio linearilolius (the common fireweed) in having much broader, flesher leaves and larger yellow flower heads.

In Tasmania, the species is “widespread” (in the sense of having been recorded from several sites across the State) and occurs in several reserves (including the Arthur River Forest Reserve, Eastern Tiers Forest Reserve, Forsythe Island Conservation Area, Liffey Forest Reserve, Snug Tiers Nature Recreation Area, Southwest Conservation Area and Wellington Park). Populations are likely to be ephemeral, with the individuals being outcompeted by other vegetation after disturbance (either natural disturbance such as wildfire or human-induced disturbance such as clearfelling).

The FPA is already undertaking monitoring of this species on a private property forestry operation in southern Tasmania, and it will be interesting to monitor the changes in this additional population, and to see if the species colonises similar sites nearby. So watch out for an unusual looking “fireweed” on disturbed ground – you might just have recorded another location for a threatened plant. Please forward details to the FPA Ecology or Botany section for confirmation.

Author contact: Mark.Wapstra@fpa.tas.gov.au
The FPA becomes a supporting partner organization in the new CRC for Forestry

Sarah Munks, Senior Zoologist and Research Coordinator, Forest Practices Authority

Sarah explains what lies behind yet another abbreviation - the CRC for Forestry.

The Cooperative Research Centre (CRC) for Forestry is a national Australian research consortium with headquarters in Hobart, Tasmania. Like other CRCs, it was established to bring together researchers and research users and emphasises the importance of applied research. It links leading Australian universities, research organizations, government agencies and companies in a research and education partnership in forest science and management. The CRC will be funded by partner contributions of $57 million over seven years and an additional $26.6 million from the Australian Government.

This new CRC builds upon the work of two previous CRCs, which were also based in Hobart: the CRC for Temperate Hardwood Forestry (1991-1997) and the CRC for Sustainable Production Forestry (1997-2005), which wound up on 30 June 2005. It has four research programmes:

• Managing and Monitoring for Growth and Health;
• High-Value Wood Resources;
• Harvesting and Operations;
• Trees in the Landscape.

The research will help ensure increased yields of high quality wood from hardwood plantations, managed in an environmentally sustainable way. As a supporting participant the FPA makes ‘in-kind’ contributions to these CRC research programs, in particular the Trees in the Landscape program which is managed by Associate Professor Brad Potts at the University of Tasmania.

Research in the Trees in the Landscape programme is aimed at ensuring the forest industry’s long-term “license to operate” in the Australian landscape through the development and verification of more sustainable forest practices and ultimately better community engagement and acceptance. Research projects in this programme address water, biodiversity, gene pool management, sustainable pest management and community issues in production forestry landscapes. FPA specialists are involved both in the management and implementation of research projects, and the translation of results into forest management outcomes. More detailed information on the research work being undertaken in this programme will be provided in future FPNews articles.

For more information about the work of the CRC (including postgraduate opportunities) see www.crcforestry.com.au

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Following the launch of the CRC for Forestry and science meetings in Hobart on the 26th July, members of Research Programme 2 “high-value wood resources” took the opportunity to go on a field tour in north-east Tasmania. The tour group discussed practical issues relevant to silviculture.
Peter McIntosh (left), Forest Practices Authority and
Mike Laffan (right), Forestry Tasmania

To simplify identification of soils, soil scientists Peter McIntosh (Forest Practices Authority) and Mike Laffan (Forestry Tasmania) have constructed soil keys for major rock types. These enable FPOs to shortlist the likely soils on coupes they are dealing with, on the basis of vegetation type, altitude and easily-observed properties like soil colour, drainage or profile form (e.g. texture-contrast versus gradational profile). Final soil identification is best made by comparing soil photographs and detailed profile characteristics with soils exposed in coupes by road building, or with observations made by augering or digging pits.

Correct identification of soils not only helps to predict risks of erosion from soil disturbance such as land clearing or cultivation but is also a guide to likely production from plantations. It may also help FPOs to determine policy for safe use of fertilisers, herbicides and pesticides near waterways, as infiltration and runoff are partly determined by soil texture and permeability.

The keys to 94 soils are now available. The initial separation is made on the rock type (granite, granodiorite, dolerite and Mathinna Beds) or the geological period (Cambrian, Permian or Triassic) to which the soil parent material belongs. The keys can be inspected on the FPA website www.fpa.tas.gov.au. Details of 31 soils including colour photos of representative soil profiles and typical native vegetation together with information on erodibility and other degradation hazards as well as site productivity may be viewed directly on the website. A further 34 soils are displayed in similar format in the book ‘Forest Soils of Tasmania’, and details of 29 other soils in the keys can be found in Soils Bulletins 1, 2 and 3 covering parts of the Pipers, Forester and Forth 1:100 000 map sheets. Both the book and the bulletins are available from Forestry Tasmania.

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Mike Laffan (pictured left) carries out a soil survey. Soil surveys help foresters to effectively manage land. In this lowland coupe superficial observations of dolerite boulders on the soil surface and similar boulders in the soil profile might lead one to conclude that the soil has low-erodibility and high potential productivity. However, detailed description showed that the soil matrix consisted of about 50% quartz sand which, together with imperfect drainage at depth, negatively affects productivity as well as the soil erodibility classification, which is moderate to high.
The issue of forestry operations upstream of domestic water intakes was highlighted by the FPA Soil and Water Scientist at the recent FPO briefings. In this article the authors give a brief account of the history of the site referred to in Peter McIntosh’s presentation.

Case study

Forestry Tasmania’s Derwent district planned to harvest a native forest coupe in the late 1990s. The geology of the area was shown on maps as mudstone, and an initial rating of moderate soil erodibility was allocated. A notification was sent to Peter McIntosh, the Forest Practices Authority’s Senior Soil and Water Scientist. Peter inspected the proposed coupe and found that some of the soils were formed in sandstone and siltstone and were likely to have moderate to high or possibly high erodibility.

The Forest Practices Plan (FPP) for road construction and timber harvesting involved the crossing of a Class 3 stream 1.8 km above a domestic water intake. Fairly standard provisions were placed in the FPP for road construction. No specific provisions relating to the domestic water intake were included.

The road was built in 2001. A complaint was received from the owner of the domestic water intake after the first heavy rains. Remedial work was undertaken on a number of occasions, including removal of slump material from the table drains, and installation of an additional culvert, silt traps, and rock lining in the table drain. A 500 litre holding tank was supplied and installed at the landowner’s house to provide clear water while the stream was carrying sediment after heavy rain. Despite these actions, significant discoloration of the water (above what would normally be expected) continued to occur after moderate to heavy rainfall. It was clear that the remedial work done was inadequate and sedimentation downstream of the road crossing was ongoing.

In early 2005 we reviewed what further work would be necessary to fix this problem. Silt from moderate to high and high erodibility soils near the stream crossing was identified as the problem. Near the stream crossing large cuttings (see figure 1) had not revegetated, and soil (fine silt) was still fretting from the batter surface. It was agreed that if the batter was not stabilised it would continue to shed fine sediment.

The organisations involved agreed on the following actions that have now been completed (see figures 2 and 3):

- reconstruct part of the table drain to minimize the amount of water running directly into the stream from the table drain;
- line part of the table drain at the base of the batter with large rocks;
- put a bench in the most problematic section of the batter (done by hand);
- install an additional culvert to minimize concentration of water and maximize filtering through vegetation;
- place hessian matting over the batter where it exceeds 2 metres in height and apply a seed mix.

The cost of the remedial works has been a five-figure sum! However, we are pretty confident that the problem...
of fine sediment entering the stream from the road crossing has finally been fixed.

What lessons can we learn from this?

It is common knowledge that long term effects on water quality can result from poorly planned and constructed roading within a catchment. Extra care should be taken to minimise crossings over streams used for domestic water supply.

We all know that we can’t necessarily identify every domestic water intake before operations begin as some landowners when asked will deny that they have a domestic water intake, and others may have illegal intakes. However, we also all know how sensitive everyone is about having good clean water for domestic use.

From our experience we think that it is advisable to:

• Take special care with stream crossings where soils have moderate to high or high erodibility and a domestic water intake occurs downstream.
• If possible, design crossings so that road batters do not exceed 2m height.
• Plan for erosion mitigation measures (e.g. rocking of table drains, extra culverts, re-seeding of road batters) before the road is built.
• Consult with the domestic water user(s) before problems occur and talk over the issues with them.
• Consult with the FPA or a soils specialist.

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Are you new to the forest industry in Tasmania or need more information on the forest practices system?

The forest practices system is constantly evolving. The Forest Practices Authority (FPA) keeps Forest Practices Officers (FPOs) up to date with changes through email. However we are aware that there are many people who are not FPOs who work with the forest practices system. We are working towards providing a full set on information on the FPA web site, including the various planning tools, but having all the information there is still some way off.

In the meantime it is suggested that if you are in this category you consult with an FPO or contact Chris Mitchell at the FPA regarding information and instructions issued in the past. We are happy to put non-FPOs who are involved in implementing the forest practices system onto the FPO email list to keep everyone abreast of new requirements. Please contact Adrienne on 6233 7966 if you wish to be added to the list.

Forest Practices Officers: are you moving?

To help us maintain an accurate database and to ensure that circulars reach you, please advise us if you are transferring, resigning or retiring.

Thanks. Adrienne, Kylie and Sheryl.
Phone:(03) 6233 7966 Email: info@fpa.tas.gov.au
The forest practices system is primarily based on the philosophy of continuing improvement through research, training and education. Excellent standards of forest practices are achieved within the vast majority of the 1,000 new operations that are conducted each year.

However problems do arise, largely as a result of human error, or a lack of knowledge or training about the requirements of the Forest Practices Act 1985 and the Forest Practices Code. In most situations, the problems are best addressed by improvements to training or management systems. Significant breaches may also attract penalties to reinforce the need for all operations to achieve high standards. Twenty two penalties were applied in 2004/2005. Total fines were $75,750.

Court actions:
1. Tree fern company Fernmania was fined $2,000 for trading approximately 800 tree ferns that were not tagged in accordance with the requirements of the Forest Practices Act.
2. Landowner G Templar was fined $2,000 for breaches of a Forest Practices Plan, including clearing a section of threatened forest and constructing a road not in accordance with the plan.
3. Contractors R Biggs and W Atkinson were fined $250 for harvesting 25 tree ferns without a Forest Practices Plan.

Fines imposed by the Forest Practices Act under s.47B of the Forest Practices Act
Note that in most cases the FPA, in addition to imposing a fine, also required the responsible party to undertake repair works or rehabilitation.

1. Landowners RJ and AJ Wright were fined $7,000 for harvesting over a boundary onto adjoining private property.
2. Landowner company Mt Morriston was fined $5,000 for clearing forest without a Forest Practices Plan.
3. Contractor South Cape Harвестers was fined $5,000 for failing to observe the wet weather provisions of the Forest Practices Code.
4. Forestry Tasmania (Murchison District) was fined $5,000 for failing to mark a section of a streamside reserve, resulting in the harvesting of a section of the reserve.
5. Landowner H Foster was fined $3,000 for failing to observe the wet weather provisions of the Forest Practices Code.
6. Contractor Sweetwater Logging was fined $1,000 for clearing the streamside reserve on the Foster property.
7. Contractor J Thorne was fined $500 for clearing forest without a Forest Practices Plan.
8. Contractor RC Watson was fined $500 for clearing within a streamside reserve.
9. Contractor Bardenhagen were fined $500 for harvesting a section of forest by clearfelling rather than selective logging as required under the Forest Practices Plan.
10. Contractors Bardenhagen were fined $500 for harvesting a section of forest by clearfelling rather than selective logging as required under the Forest Practices Plan.
11. Forestry Tasmania (Huon District) was fined $3,000 for breaches of a Forest Practices Plan in relation to the construction of a road.
12. Forest Company Artect was fined $5,000 for constructing a road without a Forest Practices Plan.
13. Contractor N Jackman was fined $2,500 for failure to observe the wet weather closures of the Forest Practices Code.
14. Landowners N & S Martin were fined $5,000 for felling an endangered forest community on vulnerable karst soils in contravention of the Forest Practices Act.
15. Landowner company Van Diemens land Company was fined $5,000 for clearing vulnerable land.
16. Contractor Red Roo was fined $5,000 for clearing and machinery disturbance within the machinery exclusion zone of a class 4 stream.
17. Contractor RJ and JE Bishop was fined $500 for clearing within a streamside reserve.
18. Landowner P Elphistone was fined $2,000 for clearing riparian forest in contravention of the Forest Practices Act.
19. Landowner A Green was fined $1,000 for clearing forest without a Forest Practices Plan.
Fungi are not plants or animals – they form a kingdom of their own. It is estimated that there may be between 20,000 and 25,000 species in Australia but about 60 per cent of these are undescribed. As an element of biodiversity, fungi are very well known to us but, as a critical ecosystem component in our forests, fungi are an overlooked (and even less well studied) group.

Fungi play a crucial role in the functioning of any forest system: from the beneficial partnerships with the roots of many higher plants (including the eucalypts and wattles), to the critical food resource for many animal species (the most familiar in Tasmania may be the Tasmanian bettong, whose fungi food source is stimulated by fire), and nutrient cycling of plant material.

A Field Guide to the Fungi of Australia provides an accessible easy-to-read text on Australian fungi (the text retails for around $30). It will prove useful to both the professional and amateur biologist wanting to become more familiar with this kingdom of living organisms. While there are other texts on the field identification of fungi, some of these are now out of print or focused on particular habitats (such as rainforests). While A Field Guide to the Fungi of Australia provides information on less than 200 species, its coverage spans a range of habitats from rainforests to pastures and open woodlands. This means that identification of a specimen to at least a broad level of classification may be possible, irrespective of the habitat from which it was observed.

Unlike a specialist taxonomic text, A Field Guide to the Fungi of Australia uses a pictorial key based on artificial criteria (such as habitat or substrate) rather than complex anatomical characters to guide the reader to a broad grouping. Within these broader groupings are provided more detailed descriptions of several of the more familiar species coupled with a line drawing. The text is supported by 23 watercolour illustrations, 260 line drawings and 36 colour photos. It is a little surprising that this book does not contain many more colour photos to aid identification, given the relatively low cost of reproducing production-quality images and the obvious photogenic appeal of many fungi.

A Field Guide to the Fungi of Australia includes some concise and readily understood sections on the classification of fungi, the way they work (such as their anatomy, reproduction, dispersal, etc.), their role in the natural world (including their uses to us) and how to collect and preserve specimens. There is also a glossary; with such a specialised field it is unavoidable that the book uses some terms requiring explanation. The preface by the author includes a worthwhile discussion on the importance of furthering research on Australian fungi, which he feels “represents a completely new frontier with new discoveries likely for the next 100 years”. While we may not have any species listed on our State threatened species legislation (yet), it is perhaps time that the often overlooked elements of biodiversity received greater attention – this book may assist with that process and I recommend it to anyone interested in discovering the delights of the forest floor, downed log and tree trunk - and maybe even putting a name to a few of those bright odd-shaped brackets, cups, jellies, moulds and corals that we so often simply walk straight past.

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Aseroë rubra, the stinkhorn or red starfish fungus, is occasionally encountered during routine wet sclerophyll forest assessments. The species appears on deep forest litter, or even rich compost or garden woodchip mulch. Fungi in this group use odour to ensure spore dispersal (during maturation, the spore-producing tissues more or less liquefy to form a highly odorous slime (like rotting meat or sewage) in which the spores are embedded. This mass is highly attractive to flies, which feed on the slime and then transport the spores on their feet to another site. Apparently once the fungus smells it is also highly toxic. The species occurs from Queensland through to southern Australia (this specimen was photographed by the FPA’s Karen Richards in the State’s northeast near Retreat). Interestingly, Aseroë rubra was the first official fungal record for Australia, collected by Labillardière on 1 May 1792 from the shores of Recherche Bay during the d’Entrecasteaux search for the lost explorer, La Pérouse.
Fred mulls over those unexplained IUFRO sightings and gets his teeth into a muffin analogy.

There was a palpable sense of sorrow and despair amongst the Tasmanian delegates at the IUFRO (International Union of Forest Research Organisations) Conference, held in Brisbane from August 8th to 13th. Sorrow that they had to endure a week of sunshine and balmy temperatures, missing out on the invigorating snowstorms that their workmates and families were enjoying back home. And despair that their smartest safari suits and matching long socks were apparently no longer in vogue, even amongst the forestry fraternity.

But the disappointment felt by the FPA team (Sarah Munks, Graham Wilkinson, Fred Duncan and Simon Davies) was amply compensated by the depth and quality of conference activities, and the opportunity to liaise with over 2000 forest researchers, managers, practitioners and regulators from over 90 countries. The IUFRO Conference is held every 5 years, and the event at the Brisbane Convention Centre was the first to be held in the southern hemisphere. The overall conference theme was “Forests in the Balance: Linking Tradition and Technology.”

There were over 600 spoken presentations, organised into sessions that covered a huge range of subjects, including timber processing and wood technology, forests and climate change, carbon sequestration, forest hydrology, community and social issues, regulation and certification, silvicultural systems, biodiversity and conservation. Keynote speakers provided global overviews, but some of the most interesting presentations described research and forest management operating at very local levels.

The breadth of issues was reinforced by 800 poster presentations, which were displayed for the duration of the conference. There was also a trade exhibition that included information booths featuring Australian and international research institutes, government agencies (including Forestry Tasmania and Private Forests Tasmania), major timber companies and equipment manufacturers.

Tasmanian forests featured strongly in proceedings. The opening ceremony included an address by the Federal Minister for Forestry, Senator Ian McDonald, which outlined (amongst other things) the Tasmanian Regional Forest Agreement and the Community Forest Agreement. In the conference itself, spoken and poster presentations by staff of Forestry Tasmania, CSIRO, University of Tasmania and the Forest Practices Authority examined aspects of Tasmanian forest management, conservation and regulation. Summaries of FPA presentations are on the FPA website – they covered the following topics:

- Protecting biodiversity in forests – the Australian experience;
- Conservation and management of grassy Eucalyptus globulus forests in southeast Tasmania;
- Conservation of the hollow resource in the dry eucalypt forests of southeastern Tasmania;
- Sustainable harvesting of tree ferns (Dicksonia antarctica) in Tasmania.

Much of the value of the conference, to me at least, was the opportunity to liaise with people from other organisations and countries, and to compare forest research and management systems in Tasmania and other parts of the world.

Despite significant advances in the last few years, some of the world’s most diverse forests – in equatorial and subequatorial areas of Latin America, Asia, Africa and Oceania – continue to be battered. Pressures include unregulated logging for timber and fuel wood, which accounts for over 50% of the world’s wood consumption, and clearing for agriculture, plantations and settlement. For example, remote sensing shows that between 1985 and 2001, lowland forests in designated Protected Areas in Kalimantan (Indonesian Borneo) declined by 56% (over 2,900,000 ha). This was primarily because of illegal logging, establishment of oil palm plantations and human-induced wildfires (Curran et al., 2004). Protected Areas are being targeted because of depletion of timber outside reserves – and the rate of illegal logging is predicted to increase further. Loss of Borneo’s diverse lowland forests

References

has had dramatic effects on fauna (over 400 species of birds and mammals are confined to this forest type) and local climate.

The situation is not all doom and gloom in the tropics. At the other end of the spectrum, in Costa Rica – a country slightly smaller than Tasmania – the cover of forest has increased from 25% to 45% of the land area since 1986, partly due to programs that give incentives to private landowners for reforestation, sustainable management and forest conservation (Ortiz, 2004).

However, in general, more rigorous systems of forest regulation and conservation are found in the less diverse temperate regions, including Tasmania. The concept of spatial equity in utilisation of forest resources (Oliver, 2005) underlines the high priority for conservation and sustainable management of tropical and subtropical ecosystems. This is illustrated in Figure 2, from a report by Yale University, showing the global distribution of species that are both endangered and highly localised.

The Virgin Blue flight back to Hobart gave a chance to reflect on the conference, as we flew over mosaics of forest and farmland in northern NSW, before cloud obscured the view. The food trolley provided a welcome diversion as it was coaxed along the aisle. The CFPO splashed out on a blueberry muffin, personally baked by Sir Richard Branson. Perhaps the muffin was an analogy for the world’s forests – the forests with the highest biodiversities and the greatest number of threatened species being represented by the blueberries disproportionately clustered towards the middle of the muffin (Figure 3). How should the muffin be cut?

Meanwhile, the cloud had lifted and we were flying over Tasmania. The muffin had long since disappeared down the Wilkinson hatch, but such in-flight entertainment was no longer necessary. We were passing over familiar territory – Tasmania’s Eastern Tiers, where for almost 30 years I’ve conducted more vegetation surveys than I care to think about. We flew over the Douglas-Apsley National Park, Snow Hill Forest Reserve, private forest reserves in the Little Swanport catchment, active logging coupes and regenerating forest, and eucalypt plantations on public and private land around Nugent, before almost pruning part of the Seven Mile Beach pine plantation as we came into land at Hobart airport.

Have we got the balance right in Tasmania, as we journey along the sustainable forest management track? Research and dialogue will continue to provide questions and answers as we deal with the responsibility of sustainably managing our forests. Although there is always room for improvement in our forest practices, we have good processes to manage our forests across their range and to maintain biodiversity at a regional level. The IUFRO conference gave me an appreciation that Tasmania’s forest practices and conservation systems (and the research that underpins them) are highly regarded internationally – and in fact provide models that can contribute to better regulatory and conservation outcomes in countries where forest clearance is having critical ecological and social impacts.

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