

TRANSCRIPT OF PROCEEDINGS

O/N 2906

FEDERAL COURT OF AUSTRALIA

TASMANIA DISTRICT REGISTRY

MARSHALL J

No TAD 17 of 2005

ROBERT BROWN

and

FORESTRY TASMANIA and OTHERS

HOBART

10.00 AM, THURSDAY, 18 MAY 2006

Continued from 17.5.06

DAY THIRTY

**MS D. MORTIMER SC appears for the applicant,
with MR P. TREE SC and MR T. MITCHELL
MR D. GUNSON SC appears for first respondent, Forestry Tasmania,
with MR A. ABBOTT and MR C. GUNSON
MR N. O'BRYAN SC appears for the Commonwealth,
with MR A. BROADFOOT and MR I. TEMBY
MR P. TURNER appears for the State of Tasmania,
with MS K. GANLEY**

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<CROSS-EXAMINATION BY MR TREE

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THE COURT: Dr Grove, I remind you that you are still bound by your previous affirmation?---Yes.

10 HIS HONOUR: Yes, Mr Tree?

MR TREE: Thank you, your Honour.

15 Dr Grove, when we, or shortly before we broke yesterday, I was asking you some questions about a meeting that you had with Mr Wapstra and others at his home on 30 January 2006; do you remember that?---Yes.

And you might remember that I - this is at page 2374, line 38 - I asked you:

20 *Have you ever discussed with him matters relevant to this case?*

To which your answer was:

25 *I've had a chat with him in the viewing room of this Court and I was present at the meeting when his expertise was being sought on damp forest, dry forest, wet forest issues.*

30 Now, is it the case that they are the only two occasions that you have discussed with Mr Wapstra matters relevant to this case, Dr Grove?---I also remember having a meeting in Wielangta at which Mark Wapstra was present.

Is that a memory that has come back to you overnight, is it?---I don't know if I was asked about that specifically yesterday, but I do remember that today.

35 Pertaining to matters relevant to this case?---Yes.

Yes. A meeting that you had with him, correct me if I am wrong, about the middle of last year?---I'll take your word on that.

40 Well, we will come to that meeting in a little moment. What I want to do for the time being is just to remind you that yesterday you said that you attended the meeting at Mr Wapstra's house out of interest. I asked you this question at page 2375, line 41:

45 *Now, the purpose of that meeting you have said was so that Mr Wapstra could give you some information about wet and damp forest; is that right?*

To which you answered:

5 *I think I was really just doing it out of interest, I don't think he was specifically giving me that information.*

?---Yes.

10 Does that remain your evidence this morning?---Yes, I think so, yes.

Well, let me give you some assistance, or let me perhaps approach it this way. What was the interest that you had in that information?---I guess I was aware that it had become apparently a big issue in the Court case.

15 Was it a matter that you were desperately needing to know?---I don't think so. I would say that I had my own impression of what constitutes wet, dry and damp forest and it was of interest to hear his impression, and it does have relevance with regard to the study that I was setting up.

20 You were setting up, in January, or had set up?---Started setting up at the end of December and was actually carrying out in January.

25 So it was relevant to a study that you had already set up and were undertaking?---I guess, yes.

You had discussed with Dr Munks, had you not, the need for you to know what he, being Mr Wapstra, and she, being Dr Munks, were going to say in their report about the vegetation issue, weren't you?---The need - can say that again?

30 The need for you to know what they were going to say in their report?---No.

35 Can the witness please be shown exhibit BB, your Honour? That may not be a document you have seen before. It is an email from Dr Munks to Mark Wapstra on 24 January 2006, and you will see, third paragraph - it appears as though it may well be she who suggested the meeting because it reads, does it not:

40 *I know I'm pushing it, but could we come up to your place on Monday to get this veg stuff sorted?*

And you will see the date of the email is Tuesday, 24 January?---Yes.

The next sentence is interesting, isn't it? It reads:

45 *Simon Grove may be appearing in Court the following week and desperately needs our interim report by the Thursday.*

Does that assist your recollection, Dr Grove, as to why it is you may have attended the meeting?---No, it doesn't. Those are her words. Sure, we wanted her reports in time for the Court, but those are her words about my desperate need, and it is the need for the interim report; it is not the need for me to understand the vegetation differences, as you have put it to me.

Can you think of any reason why Dr Munks would be saying to Mr Wapstra that you desperately needed their interim report?---I guess she wanted to put some extra pressure on Mark to make sure that the meeting happened.

Did you desperately need their interim report prior to giving evidence?---I'm not even sure I did, but I can't remember how that report ended up being submitted to the Court, I'm afraid. Was it an attachment to my affidavit? I can't remember.

What report do you think is being referred to in this email, Dr Grove?---The interim report on the work that the Forest Practices Authority carried out on the broad-toothed stag beetle in Wielangta.

In relation to the efficacy of prescriptions?---Indeed.

And that pertained in part to vegetation issues, did it?---Well, it certainly included information on the vegetation at the point at which beetles were or were not found, in that report.

Because that had been, from the outset of your involvement - which let me suggest you started at least by 8 June 2005 - had been a significant issue, hadn't it, because of Dr Peter McQuillan's finding of a beetle in dry forest?---Yes.

So that it was important for you to know, was it not, what Dr Munks and Mr Wapstra were going to say in relation to the vegetation issue prior to you giving your evidence, wasn't it?---I can't answer that. I don't know. It's important for me to understand for myself what I understand by the vegetation differences between wet and dry, certainly.

Did you perceive it as important that there be no conflict in your evidence, or no conflict between your evidence and the likely evidence of Mr Wapstra about vegetation issues?---I would like to think that from a scientific point of view, we would all be sharing the same view of what wets and dry and damp is, based on some good science.

Is the answer to my question thus a yes?---So the answer from that point of view is yes.

So that you wanted to know what they were going to say about vegetation so that there would be no discrepancy what they may say and what you may say?---That's turning it around.

Well, you wanted there to be conformity; correct?---I wanted the science to inform all our opinions.

5 Would it be fair to say that the finding of the beetle in dry forest by Dr McQuillan was in part a challenge to the way in which Forestry Tasmania had managed the beetle up until then?---I don't see it as my role to comment on challenges to Forestry Tasmania like that. I can comment on the science as a conservation biologist.

10 Well, was there any need to reconcile the habitat descriptions of dry forest in Peter McQuillan's affidavit with the wet/damp forest types of Meggs and Munks?---Well, given the claims that were being made about the significance of that single record, yes.

15 So it would be correct to say that there was a need to reconcile the habitat descriptions of the dry forest at the location of the single collection in Peter McQuillan's affidavit with those described in Meggs and Munks?---Yes, and in a broader context to better understand where this beetle does and does not live.

20 I suppose one means of reconciling it might well be to say, for instance, that the beetle found in dry forest was probably a vagrant?---That's one way.

25 Another way might be to say it is very close to a streamside reserve, a class 4 stream and it might have just been wandering around on a Friday night?---That's another way.

30 But either way do I understand that you perceived that there was a need to be able to incorporate the McQuillan finding into the notion of habitat only being wet/damp forest?---No.

35 Have you had a chance overnight to consult your computer diary to prompt your memory as to when you might have become involved in this case?---I consulted with reference to those meetings with Jim Shields, yes, which I think is what you asked me.

But only with Jim Shields?---Primarily, yes.

40 Only or primarily?---Well, those were the issues I particularly looked for when I looked at my diary.

So it didn't cross your mind that it might have been useful to scan backwards to see when you might have first become involved - - -?---Yes it did and I have a record that my first visit to Wielangta was on 15 June '05.

45 Is that your first record of any involvement in this case?---I'm sorry I didn't consult my diary with that in mind, but that's the information I came away with, that's was my first field visit to Wielangta. I presume I must have had

some involvement before then to have got involved in a field visit to Wielangta on 15 June.

5 HIS HONOUR: I thought yesterday you were asked to access your diary with respect to meetings with people in relation to the case and you referred to a paper trail?---Yes.

10 And you didn't do that?---I am sorry if I misunderstood what I was meant to do.

15 No, I may have misunderstood you, but that is my note of what you said?---Your Honour, can I just ask permission to give some explanation for my very shaky memory. It may not be normal to do so, but I've been feeling under a lot of stress these last few months and it's not just over this case that my memory has been shaky.

20 Well, just do the best you can?---And the other aspect is that for the previous two nights previous to yesterday I got virtually no sleep which made things even worse for me.

Are you uncomfortable about giving evidence now, would you prefer to do it at a later time?---I'm more comfortable today than I was yesterday. I took a sleeping tablet and did get some sleep last night.

25 MR TREE: Might I suggest to you that the first - sorry, at least the first - I will withdraw that again.

30 That your involvement in this case commenced at least by 8 June 2005?---That sounds reasonable, yes.

On which date you met with Dr Read and Maree Yee?---I'll take your word for it, I can't remember that far back, but the date sounds about right given that I went to Wielangta the following week.

35 Don't take my word for it, please. Can the witness please be shown this document.

40 You will see that this is a document which appears to be authored in part by you?---Yes.

You will see that it is minutes of a field visit on 15 June?---Yes.

If I go to the second paragraph you will see that it reads:

45 *A meeting was convened on 8 June 2005 by Steve Read to run the scientific and legal issues in the lead-up to the Court case regarding the broad-toothed stag beetle in Wielangta and the continued harvesting of 17E. At this meeting Simon Grove and Maree Yee were*

requested to make recommendations of how relevant forest operations and current prescriptions should be interpreted, implemented or changed if necessary.

5 This field visit being that of 15 June I assume, was therefore a follow-up to consider how these operations prescriptions were being implemented?---Yes.

So we can be confident - - -

10 MR D. GUNSON: By operation staff.

MR TREE: Sorry, implemented by operation staff, my friend is right.

15 So we can be confident that your involvement in these proceedings had commenced at least by 8 June?---Yes.

HIS HONOUR: What is a theft contractor?---A what?

The next sentence is:

20

Harvesting of 17E is conducted for Gunns by theft contractor.

?---I hate to think.

25 I think it should read, "their contractor"?---Looks like a spell checker gone mad.

Yes.

30 MR TREE: Yes, I think it is a recurrent error in your documents, have you ever picked that or not? I assumed you were using some voice recognition software to type it, perhaps I was wrong?---No, I don't remember typing this myself anyway.

35 Okay. In fact, correct me if I am wrong, but you had prepared a paper in conjunction with Ms Yee for the meeting of 8 June 2005 hadn't you?---I really can't remember.

40 Could the witness please be shown this document. That is a paper which appears to be authored by you and Ms Yee, dated 8 June 2005 which makes it fairly clear does it not, that it was intended to be used to inform the meeting on that day?---Yes, it does, yes, you are right.

45 And it follows that a paper such as that wouldn't have been produced on the spot I assume, there must have been some work undertaken to prepare it?---There must have been.

And probably undertaken by you in part?---Yes.

And we can therefore be confident that your involvement had commenced prior to 8 June?---Yes.

5 What doesn't seem to be in existence at least as disclosed to us, is how it is that you came to prepare this paper. Can you assist his Honour with that? I assume it is not the sort of thing you tend to spontaneously produce?---No, not unless there was some particular interest, so I guess the interest would have initially been made apparent to me through John McDonald that there was going to be a
10 Court case, would be my guess.

These proceedings commenced at about the end of May 2005; are you aware of that?---I didn't know the date, no.

15 So would it be fair to say that you have been involved on behalf of Forestry Tasmania in aspects of its resistance of this case virtually from the outset?---I would put it that I've been involved as a conservation biologist employed by Forestry Tasmania by the sounds of it from pretty soon after the start of the case, yes.

20 And I daresay that is because in part the issues raised in this case concern conservation biology?---Yes.

25 And challenge the efficacy of the implementation of conservation biology by Forestry Tasmania?---Yes.

Challenge in part the efficacy of the conservation biology research that has been undertaken by Forestry Tasmania in relation to these three species?---Well, I suppose in part, in that - yes, yes.

30 Challenge the implementation on a planning level of that research?---Yes, but not just that research, a lot of other things going into it too.

35 Challenge you?---Not specifically, because I haven't been involved until that stage, and as we talked yesterday, I'm not here as a single species expert so I haven't done single species research up until that point.

40 On the other hand, you were responsible for providing the information for planners as at 8 June 2005 in relation to conservation biology, weren't you?---I was responsible for providing this document, if that's what you mean, with Maree Yee.

No?---I don't understand your question.

45 We discussed yesterday that conservation biology or the research results of it inform conservation planning?---Yes.

So that if there was a conservation planning issue in relation to biology, they would be coming to you for advice?---Amongst others, yes.

5 So that in fact this litigation involved you personally, but perhaps you - the reason incumbent to the job - but involved you to the extent that one of the responsibilities that you had assumed was to provide sound advice to conservation planning?---Well, they way a relationship between conservation biology and conservation planning works is that we, as in conservation biology, think of the - figure out the research needs for ourselves and feed that information up to those who may or may not be aware in conservation planning or in planning generally. Sometimes it comes the other way, we get requested to do particular research.

15 And we will go through it in a moment, but correct me if I am wrong, what has in fact occurred thereafter is you have been personally involved in modifying prescriptions in relation to coupe 17E, have you not? Or the implementation of prescriptions, I should say?---I think in - to the extent that I attended a meeting which I think was this one where we discussed habitat clumps.

20 And their repositioning?---Yes.

And that was undertaken?---Yes.

25 So that in fact insofar as these proceeding challenge the efficacy of the wildlife habitat clumps on coupe 17E, they are a direct challenge to a decision that you had a hand in?---To the extent that they challenge the efficacy of wildlife habitat clumps, yes, I had a hand in the decision to - no, I didn't have a hand in the decision that they were moved, but I recommended that one be moved.

30 Yes. And to the extent that they remain inefficacious, that is a reflection on you because you were asked for advice as to their efficacy prior to harvest?---I don't know if I was asked for advice, but I offered advice, yes.

35 And your understanding is, correct me if I am wrong, that you are being proffered as an independent expert in this case?---My understanding is that I am being proffered as a conservation biologist employed by Forestry Tasmania.

40 Not independent?---I don't under - I don't know is the answer.

Well, it would be very difficult for you to be proffering independent advice given that you have had a hand in formulating the implementation of prescriptions on this coupe?---I have made recommendations, yes.

45 Well, do you accept that having been involved in the planning stage of this coupe, it makes it very difficult for you to be giving independent advice in relation to issues post harvest?---No.

HIS HONOUR: Sorry, did you say you didn't know whether you were an independent witness?---I think I got confused by the question, your Honour. I believe I am an independent witness, but at the same time I am employed by Forestry Tasmania. That is why I feel there's some difficulty. I repeat the words that Jeff Meggs said, that he has never felt any kind of interference in terms of his free thinking from Forestry Tasmania. I am the same.

MR TREE: This paper of 8 June 2005 about line 6 on the first page identifies, doesn't it, that the broad-toothed stag beetle is particularly rare?---Yes. Well, it occurs at low densities.

Well, you say about seven lines down towards the end of the line:

Being so rare - - -

?---Yes, seven lines down, yes.

Thank you:

Its exact habitat requirements are poorly known.

?---Yes.

You say a couple of lines later:

It may also occur in drier forest.

?---Yes.

Skipping over a couple of lines, the final sentence in that paragraph:

Whether it can live in dry forest permanently or disperses through it remains unclear.

?---Yes.

At page 2 you say this, don't you, under the heading "2, Minimise Surface Area of Coupe That is Machinery Movement", second sentence:

Heavy machinery would certainly tend to fragment or crush logs which would greatly reduce their value as BTSSB habitat.

?---Yes.

Why do I not see any mention of that in any of the reports you have prepared or the body of your affidavit, Dr Grove?---I have referred to the proportion of logs that were crushed in the coarse woody debris assessment that I did post harvest.

Where do I see any mention in any of your reports or your affidavit that the fragmentation or crushing of logs would greatly reduce their value as broad-toothed stag beetle habitat?---Well, you don't.

5

You have been asked to prepare a model in relation to coarse woody debris in the context of it being habitat for the broad-toothed stag beetle, and you didn't think it was relevant to mention the fragmentation or crushing of logs and its impact on the value of the debris of broad-toothed stag beetle habitat?---Well, it was in an attachment to that same affidavit I believe.

10

What was?---The information on the degree of crushing.

Yes, but nothing which suggests that it would greatly reduce the value of that material as broad-toothed stag beetle habitat?---Well, the context of developing that model was to provide some information on coarse woody debris, not on broad-toothed stag beetles specifically, as far as I remember.

15

Under paragraph 3 we see this, do we not:

20

Areas from which large-standing trees are lost or suffer from an interruption to recruitment of large logs in the future and may lead to greater exposure of the ground layer, and by implication the soil log interface to desiccation. Both these impacts would reduce the suitability of the forest for the broad-toothed stag beetle now and into the future.

25

That is what you wrote on 8 June?---Yes.

30

Where do I see any mention of that in any of the reports or your affidavit, Dr Grove?---Well, I don't know if I have or haven't, but the other thing to bear in mind is this is a discussion document that we produced at the outset while we were developing our understanding, and that was the purpose of doing so.

35

Over the page, perhaps in fairness to you I need to begin at the bottom of that page, talking about predation as a sentence there, I just remind you of that. At the top of the following page:

40

Note this recommendation is counter to the felling prescriptions in the forest practices plan because these state that in areas of advanced growth retention all mature trees will be removed. Hence if we want this recommendation adopted it may require a variation to the forest practices plan.

45

?---That's a good example of why this was a discussion document. That was my understood and I think - it may be the wording "in an FPP" but the intention of the wording I was told at the meeting at the following week, I

think, was that it's not all mature trees will be removed. It's - I'm not an expert on that system, but I had a misinterpretation, a misunderstanding here.

Paragraph 4, you say this first sentence:

5

All of these activities would tend to reduce the quality of remaining logs including harvesting residue as current or future habitat for the broad-toothed stag beetle. Optimal habitat is apparently when logs are unburnt and remain in contact with the soil in shady conditions.

10

?---Yes.

Am I correct in saying that I see no mention at all in any of your reports or the body of your affidavit about the fact that optimal habitat for the broad-toothed stag beetle is apparently when logs are unburnt?---Yes, that's true.

15

Under the heading Further Note in that paragraph, you said this:

20

While the forest practices plan prescribes a top disposal burn in accordance with technical bulletin number 11, there is no mention of any need to minimise the degree to which larger logs are burnt to ensure suitable habitat for the broad-toothed stag beetle. Hence if we want to specify any reduction in burning levels it may require a variation to the forest practices plan.

25

?---This is another example of this being a discussion document that we took to the field and when we discussed it in the field, the people who are more qualified to comment on what a top disposal burn means assured me that indeed larger logs don't generally get burnt and that it wouldn't therefore need any variation and the purpose of the top disposal burn is to reduce the finer material not the coarse material.

30

If there were to be burning of the larger logs at any time in 220 years that would reduce the value of those logs as habitat for the broad-toothed stag beetle wouldn't it?---Well, that's what's just being - that's current understanding that if they're burnt they may not be suitable for a while, while they're charred, but we don't know for sure, but that's possible.

35

Again, I don't see any mention of that in any of your reports or your affidavit, do I, Dr Grove?---No, you don't but I wasn't - my affidavits weren't about that.

40

You don't think that that may have been a useful fact for this Court to have been told in assessing the value of the output of your model?---It might have been but it wasn't the purpose of my affidavits.

45

Under the heading Longer Term Considerations, paragraph 6, you said this first sentence didn't you:

Increased fire frequency is likely to be one further threat to the species through impacts on logs and on exposure and may be one consequence of a more open forest structure arising from silvicultural interventions.

5 ?---Yes. This is a discussion document bear in mind and I'm also remembering
- yes, it's a discussion document and it may be true.

10 So that you perceived as of 8 June that one consequence of a more open forest
structure might be increased fire frequency didn't you?---Yes, I perceived that
it may be.

15 You then went out to the field a week later on 15 June and we can see who you
went out with if you look at the second or the earlier document that I sent to
you, or given you?---Yes.

We can see that you went there with quite a crowd: Mr Brown, Ms Batchelor,
Dr Read, Mr King, Ms Yee, Mr Wapstra and Matt Howard?---Yes.

20 And the purpose of this was to do what?---As I understood it to understand
what the operational issues might be for that coupe in relation to the broad-
toothed stag beetle.

25 We see in the third paragraph last sentence that which I have been reading to
you this morning, there was thus a need to reconcile the habitat descriptions of
the dry forest at the location of the single collection in Peter McQuillan's
affidavit with those described in Meggs and Munks 2003?---Yes.

30 So that need to reconcile had been identified by you as early as 15 June
2005?---Yes.

So that there was an imperative identified by you to fit the McQuillan finding
into the Meggs and Munks view wasn't there?---No, that's not the case. To
reconcile doesn't mean to fit in.

35 Doesn't reconcile mean to resolve?---Yes, probably.

40 Well, you don't seriously suggest do you that you were approaching this with
an open mind that Meggs and Munks might be right and McQuillan right, are
you?---I am suggesting that we're approaching it with an open mind, yes. And
the biggest, one of the biggest research gaps identified in Meggs and Munks
was the large log issue which we then followed up which through doing so
helps to throw some light on this issue.

45 So you say, do you, that in the face of litigation as being undertaken that purely
objective scientific experiments were being conducted by Forestry
Tasmania?---I do. It may be hard for you to believe, but I do. That is what
happened.

Without any perceived view on your part that a particular outcome may be more favourable for your employer than another?---No, of course I was aware what outcomes might be considered - perceived more favourable than others. I'm not naive, but the research that we did was independent and it could have gone either way. I didn't know the outcome before I did the research.

5
Who in that group of people was independent of Forestry Tasmania?---In this group of people that attended that day?

10 Yes?---Mark Wapstra and Matt Howard.

I see. So they are independent of Forestry Tasmania. Let me ask the question another way. Who of the people attending there were not employees or representatives of organisations which had a vested interest in showing that the current prescriptions were efficacious?---Mark Wapstra.

15
From the Forest Practices Authority?---And - yes, well, I would say that we all were. I mean, we - Forestry plays by the rules, and if the rules change so does how we play it changes.

20
But Mr Wapstra from the Forest Practices Authority had been intimately involved in identifying the very prescriptions that were under challenge in coupe 17E, hadn't he?---You're telling me that, I didn't - - -

25 You are aware of that?---Of his involvement in developing broad-toothed stag beetle prescriptions, I am not really aware of it.

Involvement in coupe 17E Forest Practices Plan full stop?---I don't know the extent of his involvement in developing that Forest Practices Plan.

30
He didn't disclose to you that he had been involved in selecting or at least advising as to appropriate prescriptions in coupe 17E?---He has not disclosed that to me as far as I remember.

35
If he had been so involved, would you agree that that would make it a bit tricky to say that he was independent?---I see it at a different level. I mean, you - we started this talking about what if the research showed this or that. That research ought ultimately lead to lead to changes to the Forest Practices Code, which would lead to changes to prescriptions, but that's a different level from
40 implementing prescriptions with the current code at a particular coupe.

Now, you knew Dr McQuillan to be a university lecturer?---Yes.

45
You knew that he had undertaken research of this very coupe in conjunction with Dr Karyl Michaels?---Yes.

There was no ambiguity about their finding, was there?---Was there ambiguity about their finding? Not on paper.

5 So why not just accept the finding of their research?---Well, I didn't dismiss the finding of their research, but because it appeared to be at odds with the published information on the species and indeed because the Forest Practices Code also is based on the published information on the species, there seemed to be a need to investigate it more, particularly in the light of its involvement in the Court case.

10 Might it have been the case that there was collectively a perceived need to discredit Dr McQuillan's finding?---Not below those with a scientific background.

15 So is that to say that there was a perceived need that you are aware of on the part of those without a scientific background to discredit Dr McQuillan's finding?---I can't speak for them, but not as far as I'm concerned.

20 Then why did you make that distinction between those with a scientific background and those without one?---Because I don't appreciate the suggestion that I might be included amongst those, and I know for a short - for certain that I didn't have that vision, but I don't want to speak for others.

Well, there has been a determined effort, let me suggest, to discredit Dr McQuillan's views in this case, has there not?---That's your suggestion.

25 You don't think that that would be a fair construction of Dr Roberts' affidavit?---I haven't read Dr Roberts' affidavit.

30 Do you accept that the broad-toothed stag beetle is found in dry forest?---I accept it, yes, it has been found in dry forest. Yes.

Do you accept that that forms part of its habitat?---Yes.

Thank you?---But there are limits.

35 HIS HONOUR: Who is Matt Howard?---I am trying to remember. I think he must have been the site overseer or something for the harvesting operation.

It says in brackets Gunns?---Yes, because - - -

40 What was he doing there?---As I understand it, Gunns were actually overseeing the harvesting of this coupe, some contractual arrangement between Forestry and Gunns and I don't understand the details.

45 What would his interest be in the broad-toothed stag beetle?---Very little I should think, but he might sort have been there to ensure our safety or it might have been looking at the layout of the coupe, I can't remember I'm afraid.

I notice on the last page he is mentioned as re-marking part of a southern coupe boundary with Frank Bishop?---There you go, yes, something to do with the boundaries of the coupe.

5 MR TREE: On the next page of that document you will see at about point 3 under the heading Positioning of Wildlife Habitat Clumps, there is a shaded area in which this appears:

10 *Mark Wapstra explained that wildlife habitat clumps are primarily aimed at maintaining more general biodiversity values of an area by providing local refugia and by enhancing the ability of species to recolonise logged areas. They are not generally aimed at threatened species conservation, although this can eventuate in some situations.*

15 ?---Yes, I see that.

Well, that is true, isn't it?---As I understand it, yes.

20 And in fact it would be correct to say, wouldn't it, that the minimum desirable size from a ground dwelling beetle's perspective for functional reserves should be at least 20 hectares, isn't it?---I don't know where you get a figure of 20 hectares from, I'm afraid.

25 This document, please, Dr Grove. Could you tell his Honour, please, what I have just put before you?---Yes, it's a page entitled Effectiveness of Wildlife Habitat Strips as a Conservation Strategy in Plantation Areas.

30 Who is the author of what appears on that page, Dr Grove?---I am the author, and there is some text underlined and something there that says "This kills the WHC idea".

Yes, don't worry about what is scribbled on it. What is the date of that publication, Dr Grove?---January 2005.

35 Prior to the commencement of this case?---Yes.

The sentence which I just read out to you appears next to the bit where there is scribble. I accept there is scribble?---Yes.

40 That is your sentence, isn't it, Dr Grove?---Yes.

Could you just read it out again, please?---Where do I start?

45 I think it is on the final column, the sentence that I read out to you?---Functional reserves implying that they should be at least 20 hectares in extent to ensure a core area free of edge effects.

And you specifically refer in that sentence, although you didn't read it out, to the broad - sorry, to ground-dwelling beetles, don't you?---Yes, but I should point out that this is in a very, very different context. It's not in the context of wildlife habitat clumps in partially harvested native dry forest, this is in the context of wildlife habitat strips in plantation areas in wet and damp forest and it's not in the context of a threatened ground beetle species, it's in the context of overall beetle assemblages.

You specifically refer to rare beetles, I think you will find I underlined it in there, rare beetles and those with poor dispersal capacities?---Yes.

That is the broad-toothed stag beetle, Dr Grove, isn't it?---Not in this case, I wasn't part of this study at all, the broad-toothed stag beetle doesn't even occur in this area.

HIS HONOUR: Put the question again, Mr Tree.

MR TREE: The broad-toothed stag beetle is both rare and has poor dispersal ability, doesn't it Dr Grove?---Yes.

Can I have that document back please. I don't see any mention of that research in your affidavit or reports, do I, Dr Grove?---No, it's not relevant to my affidavits.

Not at all, Dr Grove?---No.

HIS HONOUR: What was the purpose of your affidavits, do you say?---As I understand it one was to report on the modelling of coarse woody debris that we'd undertaken and the other was to report on the log rolling survey that we did for the broad-toothed stag beetle, but there were some attachments included as well under those affidavits.

MR TREE: If you look at the document which I have had placed before you which relates to the field visit of 15 June?---Yes.

On the final page there is a non-bolded heading nonetheless, Outcomes and Action Items, at about point 3 on the page?---Yes.

Fourth bullet point:

Simon Grove to forward Peter McQuillan's affidavit and report to Sandra Roberts for comment on hydrological issues.

?---Yes.

Is that to say that you had assumed responsibility, personal responsibility for obtaining expert assistance in dealing with Dr McQuillan's affidavit?---Can you put the question again, please.

5 Sure. Should I read that as indicating that you had assumed some personal responsibility for dealing with issues, obtaining expert assistance in dealing with issues in Dr McQuillan's affidavit?---To the extent as is written in that bullet point, I suppose, yes. To the extent that it's written there. I'd assumed responsibility for forwarding his affidavit and report to Sandra Roberts.

Can the witness be shown this document, please, your Honour?

10 That is an email from Dr Roberts to yourself, Mr King who is one of the people who went to this field on 15 June, Mr McDonald, Dr Read who is one of the people at the field visit on 15 June and Maree Yee who was one of the people on the field visit on 15 June?---Yes.

15 You received that email didn't you?---I'm down as having received it so, yes.

And it reads:

20 *Here are my thoughts on some information that we could consider collecting to support our case.*

?---Yes.

And you will see that there is an attachment to it?---Yes.

25

You will see that that attachment addresses what is involved or what is stated by Dr McQuillan in his affidavit?---Yes.

And lists a series of issues which might assist in refuting it?---Yes.

30

That, with respect, doesn't read like objective, independent science uninfluenced by outcome does it?---No. This is an email to me and I didn't recall having read it because it was to a number of people.

35 And the email refers to what we could consider to support our case?---Yes, it does.

40 And with the exception of Mr King who is in planning and Mr McDonald who is a legal officer, the four people who are encompassed by the word "we" and "our" are scientists aren't they?---Yes.

There was - let me put it again, Dr Grove - a deliberate effort to discredit Dr McQuillan wasn't there?---Not - no, not through science.

45 Then by what if not through science?---Well, there's a legal process whereby one side is seeking to discredit the science and the character of the other side, and it's happening on both sides as far as I can tell.

And you are a foot soldier in that army, aren't you Dr Grove?---It appears so, to the extent that I'm sitting here.

Your Honour, I tender the commentary of 8 June.

5

HIS HONOUR: Exhibit CC.

EXHIBIT #CC COMMENTARY OF 08/06/2005

10

MR TREE: The minutes of the field visit on 15 June.

HIS HONOUR: Exhibit CD.

15

EXHIBIT #CD MINUTES OF THE FIELD VISIT ON 15/06/2005

20 MR TREE: And the email of 25 August 2005.

HIS HONOUR: Exhibit CE.

25 **EXHIBIT #CE EMAIL FROM DR ROBERTS DATED 25/08/2005**

MR TREE: Now, would I be correct in saying that you undertook a further field visit to Wielangta on 21 June 2005?---I don't recall.

30

Well, I can tell you that I have in front of me minutes of a field visit on 21 June compiled by Maree Yee that records you as an attendee together with her?---Okay.

35 Happy to accept you were there?---Yes.

And it appears as though there was another field visit on 15 July 2005 at which you were not present. Are you aware that there was a field visit by Dr Yee and a Belinda Yaxley on 15 July?---If you reminded me of the context I might remember.

40

To conduct pre-harvesting assessment of wildlife habitat clumps in 17E?---Okay, yes.

45 Then on 3 August there was something called an inter-agency fauna group meeting wasn't there?---Yes, there was.

And it discussed one species didn't it at that meeting?---The broad-toothed stag beetle was a major point in discussion, yes.

That is all that was discussed at that meeting?---I don't remember.

5

Could the witness please be shown this document, your Honour?---Thank you. Are you waiting for a response from me?

Well, you have completed reading it?---Yes.

10

I want to suggest to you the only species that was discussed at the inter-agency fauna group meeting on - I think it is 15 August, am I correct? I don't have another copy of the document?---No, it's 3 August.

15

On 3 August, was the broad-toothed stag beetle?---Yes.

Could you tell his Honour, please, who was present at that meeting?---Sara Munks and Phil Bell from the Forest Practices Authority; Robbie Gaffney from threatened species unit; Suzette Weeding from Gunns; Gary King, Simon Grove and Maree Yee from Forestry Tasmania.

20

So there was a meeting of an inter-agency group?---Yes.

Inter-agency generally refers to Government organisations, doesn't it?---I don't know.

25

What is someone from Gunns doing at an inter-agency fauna group meeting, or don't you know, Dr Grove?---Suzette Weeding is the - I don't know what her job title is - ecologist or conservation planner or something for Gunns. I guess she's an equivalent of Maree Yee in Forestry, roughly speaking.

30

It would be incorrect, wouldn't it, to see this fauna group meeting on 3 August as anything other than a direct result of this litigation, wouldn't it, Dr Grove?---I don't know, because I didn't attend many of the inter-agency fauna group meetings and I don't know to what extent broad-toothed stag beetle had come up in previous meetings, prior to this one.

35

It is unlikely to be merely coincidence that these proceedings are commenced at the end of May and the only topic of discussion at an inter-agency fauna group meeting on 3 August is one of the three species, the subject of this litigation?---Yes.

40

Hardly likely to just be coincidence?---Yes, I agree, it's likely that with the raised profile of the species that was the main subject of discussion.

45

The raised profile of the species?---Mm.

Star beetle status?---Apparently.

Page 2 lists a number of things that were to be undertaken by people?---Yes.

The last of those refers to you, doesn't it? SG is you?---Yes.

5

And MY is Maree Yee?---Yes.

You and Maree were to develop "operational feasible interim prescriptions to mitigate the loss of extant coarse woody debris from harvesting activities such as compaction by machinery"?---That's what we were requested to do, yes.

10

Can you produce those, please, Dr Grove, to this Court?---No, I can't. We don't have any.

Inherent in that is the acknowledgment that there were not then operationally feasible prescriptions mitigating against the loss of extant coarse woody debris from harvesting activities, isn't it?---Beyond those which already exist in terms of minimising damage to the coupe through the use of snig tracks and choice of machinery and things like that, yes.

15

It was identified at that meeting on 3 August that there was a need to develop interim prescriptions - in other words, those that were intended to hold the fort until something final could be brought into existence - to mitigate the loss of extant coarse woody debris, wasn't it?---Yes, it's identified as a need, yes.

20

And nothing has been done since 3 August about that?---No, that's not true.

What has been done?---Well, we conducted that research which is presented in that attachment to the affidavit which reports on the level of machinery damage, for a start, and we continue our plans for developing models of coarse woody debris, and this all forms part of that process, trying to understand coarse woody debris dynamics and what needs to be done. This just identified an early need.

25

And the fact that there was a need for interim prescriptions suggests, does it not, that it was recognised there was a need for urgent ameliorative action?---No, I don't think so. I think it's a recognition that whatever prescriptions we come up with as a first take will be just that. It's part of adaptive management. You try things and they may not be what you finally end up agreeing to.

35

40

The action item on page 1 that is identified, the first action item, SM, that is Dr Munks, isn't it?---Yes.

45 SG, that is you?---Yes.

"To develop a proposal for strategic surveys for broad-toothed stag beetle in dry forest coupes within its range"?---Yes.

That, am I correct in saying, is the interim report, which is, I think, exhibit 12 in these proceedings?---I think that's how it morphed, yes. This is how it started out and that's how it ended up.

5

Yes. It started out a responsibility jointly of you and Dr Munks, didn't it?---Yes.

10 It didn't strike you as odd that as at 3 August 2005, in the context of litigation against Forestry Tasmania, in which it was being asserted that there were inadequate prescriptions covering broad-toothed stag beetle in dry forest, that the review of that was to be jointly undertaken by the respondent and the independent regulator?---Well, I don't - I mean, I see myself as a conservation biologist who happens to work for Forestry Tasmania. I mean, there's not very
15 many people around who can do this, and I don't see anything wrong with it.

You don't see anything wrong with the respondent and the independent regulator jointly undertaking research in the context of litigation involving the species the subject of research?---That's not the language and that's not the way
20 we operate as scientists. We weren't thinking in terms of - I don't even know the legal terms you just used, litigants and whatever. We were thinking of how can we get this work done, and this was the way that we proposed to do something, and as you know, how it transpired was Sara Munks taking over the developing of that proposal and - yes.

25

I tender those minutes, your Honour.

HIS HONOUR: Exhibit CF. Do you have copies?

30 MR TREE: I don't, I'm sorry. I have a clean copy of the minutes and I will arrange to have copies made available.

MR D. GUNSON: What is the date of the meeting again?

35 MR TREE: 5 August, I think.

Fifth or 3rd, Dr Grove?---3 August.

40 **EXHIBIT #CF MINUTES OF INTER-AGENCY FAUNA GROUP MEETING, DATED 03/08/2005**

HIS HONOUR: Have you finished with the minutes?

45

MR TREE: I have, thank you, your Honour, yes.

HIS HONOUR: How much longer do you think you will be with this witness, Mr Tree?

5 MR TREE: I am sorry I have gone a little longer than I estimated. I think I will probably be about another 15 minutes, your Honour.

HIS HONOUR: All right. We might keep going.

10 MR TREE: Thank you.

HIS HONOUR: As long as you are happy with that, Dr Grove?---Yes.

15 MR TREE: Dr Grove, as luck would have it, am I correct in saying you did your doctoral thesis in relation to beetles?---Yes.

You had the luxury, I think, in undertaking that research in a warmer clime?---I wouldn't use the word "luxury", but it was a warmer climate.

20 And you undertook that research in the context of tropical rain forests in North Queensland?---That's right.

I am not having a crack at you for this, but you published work related to your PhD in the Journal of Biological Conservation, did you not?---Yes.

25 Would you look at this document please, that is a copy of the article that you authored that was published in volume 104 of Biological Conservation?---Yes.

30 Although your work in that research did not directly involve temperate forests, you did make reference to the history of forest management regimes in temperate forest did you not?---Yes.

And you did that in part to inform forest management in tropical rainforest?---Yes.

35 To warn of the consequences of what can follow from poor management?---Yes.

40 Your views, no doubt expressed in relation to the consequences of poor management in 2002, perhaps 2001 since that is the date you submitted the paper, haven't changed have they?---I suspect not.

If we look at the first page in the introduction we see, second column about point 8 on the page, this sentence do we not:

45 *Currently, extinction is mostly driven by increasingly intensive forest management coupled with the delayed effects of past fragmentation. European forestry practices have generally resulted in a progressive*

simplification of stand structure and the loss of mature timber habitat especially over mature trees.

5 Now, I want to just ask you some questions at this point about that language and how it might apply to Wielangta and particularly coupe 17E. The substantial removal of vegetation followed by regrowth is going to lead to simplification of stand structure in coupe 17E isn't it?---It could do.

10 Well, not could will. At the moment there is six cohorts, effectively after this there will be two, perhaps three?---In terms of cohorts, yes.

15 Thank you. And the comment, "a loss of mature timber habitat especially over mature trees," is likely to also apply to coupe 17E looking in to the future isn't it?---Yes.

So both of those comments that you have made in relation to European forests would apply to coupe 17E wouldn't they?---To the extent that I've just agreed, yes.

20 Thank you:

These changes have often been shown to result in reduced species richness amongst -

25 And I don't know how to pronounce that word, you might give me a hint - is it saproxylic?---Sounds good, yes.

30 *...insects, reduced abundance of remaining species and changes in assemblage composition away from those characteristics of old growth forest.*

And you refer to some earlier work which I think was then in publication:

35 *For parts of Europe where the conservation status of insects is relatively well known, saproxylic insects now comprise a disproportionately large percentage of nationally rare and threatened species. Outside of Europe saproxylic insects have received far less attention, although the term has recently been employed in an equivalent environments in North America and Australia where similar*
40 *processes of fragmentation and intensification of forestry are now evident.*

?---Yes.

45 What you were saying was in relation to those beetles we have started on the path that Europe has gone down leading to extinction, that is what you were warning about wasn't it?---That's what I was warning about, yes.

You then, I won't remind you of all of your article, can I take you to page 160 please?---160?

Yes?---Yes.

5

Under the heading Management Implications, I accept this is in the context of you considering tropical beetles:

10 *It seems highly likely that the differences in the saproxylic beetle fauna in logged and regrowth forest in comparison to old growth are a direct result of differences in forest management history, especially given their clear association with the mature timber habitat and the effects of logging and clearance on this.*

15 ?---Yes, I did.

There is no reason to draw a distinction between tropical and temperate forests in the application of that sentence is there?---In a general principle, no.

20 No. You then continue:

25 *In general the findings suggest that less intensive management such as one-off selective logging is likely to have a lesser impact than repeated and frequent heavy logging or total clearance.*

And I guess that is commonsense?---Yes.

One-off selective logging, for instance, such as might have or did take place in coupe 17E some years ago?---Yes.

30

35 *Under an idealised sustainable forest management system the mature timber habitat would not be depleted beyond the level at which the saproxylic insect fauna would begin to lose overall ecological integrity. To fully satisfy the criteria of sustainability logging operations should be capable of maintaining biodiversity over more than one logging cycle, yet the logged sites used in the present study were exposed to logging for at most a few decades and there are few places in the tropics where logging has been carried out for more than one or two cycles.*

40

?---Yes.

That sentence applies equally to Tasmania, or at least Wielangta doesn't it?---No.

45

Do you say that logging of the kind which coupe 17E has been subjected to has been carried out for more than one cycle in Wielangta do you?---No, I don't.

It follows then that that sentence applies to Wielangta doesn't it?---The last part of that sentence applies, yes.

Yes. Top of the following page, you say:

5

Translating these findings into action is vital since the decisions that foresters make today concerning silviculture and logging standards will have implications for the survival of the mature timber habitat and its biodiversity for decades or centuries to come.

10

?---Yes.

Do I understand that the only assessment of the viability of coupe 17E or any area in Wielangta to continue to provide coarse woody debris as a habitat for the broad-toothed stag beetle is the work that you have done in your affidavit?---Probably, yes.

15

That is outrageous isn't it, from a scientific perspective that we are harvesting in the face of ignorance?---No, we're on a path, a learning path and we're on a path of adaptive management, we are doing research and we've gone over - well, others have gone over these issues in previous parts of these proceedings.

20

At best it is an experiment?---Adaptive management includes an element that you could define as experimentation, but it's - yes.

25

And but for this case you wouldn't have even undertaken the modelling that you have undertaken in your affidavit?---We would actually have spent more time developing our models for wet eucalypt forests before transferring it to dry eucalypt forests, yes.

30

That is a yes, isn't it?---Yes.

Thank you. You conclude on page 161 in these terms, second column about point 3 or 4, three and a half down the page:

35

But unless models of forestry are adopted that cater for the maintenance of sufficient mature timber habitat then the chances are that more and more species will ultimately face extinction.

40

That is still true, isn't it, Dr Grove?---Yes.

However, even the most conservative silvicultural system and even the most innovative management technique aimed at recreating old growth structural conditions in managed forest would still be highly unlikely to cater for all saproxylic species.

45

That is still correct, isn't it, Dr Grove?---It's a hypothesis, but yes, I suspect it's true.

As Hunter concluded, "the best way to manage for old growth is to conserve an adequate supply of present stands and leave them alone".

5 ?---Yes.

How many reserves for the broad-toothed stag beetle have been identified in Wielangta?---I don't know.

10 And you are the conservation biologist for the respondent?---You know I am.

One of the risks - sorry, I tender that article, your Honour.

15 HIS HONOUR: Exhibit CG.

EXHIBIT #CG ARTICLE BY DR GROVE PUBLISHED IN VOLUME 104 OF BIOLOGICAL CONSERVATION

20 MR TREE: One of the risks - I note the time, your Honour, I will be a couple more minutes unfortunately. And I am told that I need to be spoken to.

25 HIS HONOUR: All right. Are you moving to a new topic?

MR TREE: I am, your Honour, yes.

30 HIS HONOUR: All right. Mr Gunson, were you going to be long in re-examination?

MR D. GUNSON: I will be a few minutes, but it might be more convenient if my friend needs to be quote "spoken to" that we take the break, your Honour.

35 HIS HONOUR: All right. We will adjourn now until 25 to 12.

ADJOURNED [11.18am]

40 **RESUMED** [11.35am]

HIS HONOUR: Just a moment, Mr Tree.

45 MR TREE: Thank you.

Dr Grove, no doubt it is important for you to keep up to date with the recent products of research in relation to a whole range of species, is it not?---I try. I can't say any more than that.

5 And I daresay one of the best ways of doing that is to maintain a review of the current literature as it is published from time to time?---Again I try to do so.

Thank you. Could the witness please be shown this document? You will see that this is a very recent article published only this year from a journal called
10 Molecular Ecology. Are you familiar with this article?---It's been on my desk and I've had a quick look through it, yes.

Right. It doesn't have immediate application to this case, but it is nonetheless a very interesting article?---I would agree.

15 Interesting because it deals with the analysis of two things, does it not; fragmentation of habitat of log-dwelling beetles - - -?---Yes.

- - - and the genetic variation which occurs within those fragmented
20 populations?---Yes.

Both of which have potential application to harvesting operations in Tasmania?---Potentially.

25 The difference between what was being considered here and harvesting operations for instance in Wielangta is that the regeneration was pine plantation in this case. Are you aware of that?---That's one of the differences.

30 Sure. So that inevitably there would be a reduction in dispersal ability through, or from native vegetation through a pine plantation, one would expect that?---I don't think it's inevitable, but I think they demonstrated that.

35 Sure. Would I be correct in saying that really from the point of view of this case probably the most relevant part is at page 1489?---Without reading the paper in full I don't think I could say whether that was the most relevant part, but if you want me to turn to that page I will.

40 All right. If you wouldn't mind?---Did you say 1489?

Yes. And this reflects I think both aspects of the fragmentation. With respect to these two beetle species, they say:

45 *Both those species showed evidence of reduced mobility and gene flow in fragmented compared to continuous forest including significantly greater IBD -*

and I don't think we need to trouble ourselves with what that is -

significantly stronger local structure and spatial auto correlation and significant patterning of f -

5 and I won't try and demonstrate my scientific ignorance by not knowing what that is -

allelic richness and density.

10 They continue:

15 *It is perhaps surprising that common and robust insects could be measurable impacted after 21 to 36 years of habitat modification. This is likely to represent only in the order of 10 or 15 generations, although their life cycle is very poorly known. Many saproxylic beetles have extended life cycles eg the fungivorous beetle is inferred to have a two-year development cycle -*

20 which may well apply to the broad-toothed stag beetle, I think - correct?---It may.

They then continue:

25 *Such a life cycle is likely to apply in the present case if the species are large and live at generally low temperatures feeding on decaying wood. The observed spatial genetic patterns imply that the pine plantation matrix for both beetle species poses a barrier or filter to gene flow and mobility.*

30 They then go on to talk about the difference in characteristics between pine plantations and native forest and explain why it is that that might be the case. In the following paragraph they say:

35 *We predicted fragmentation of forest to have a considerably greater impact on the less mobile species than the more desiccation tolerant, that difference being validated here for the first time, albeit by a fairly crude desiccation heat tolerance experiment, and this was indeed the case.*

40 Now, I think we have agreed that the broad-toothed stag beetle is not a particularly mobile beetle, it is flightless?---Yes.

45 So would I be correct in saying that this article poses a number of interesting issues in relation to the beetle, not the least of which is whether the fragmentation of its habitat might lead to the same genetic modifications?---Yes.

Certainly it appears in relation to these two beetles, that that has proven to be the case as a result of fragmentation of habitat, doesn't it?---As a result of the fragmentation as reported in this document, yes. Not anything to do with Wielangta, but as in Tumut where you have a few isolated remnants of native forest embedded in a sea of pine.

Of pine, sure. There has however been no research undertaken, correct me if I am wrong, as to fragmentation impacts of partial harvesting regimes on the broad-toothed stag beetle?---No, there hasn't as far as I know.

And indeed am I correct in saying that this is the first research as to fragmentation impacts on beetles in Australia at all?---At the genetic level?

Yes?---There's been some concurrent research by the same team elsewhere in Australia, in other forests in ACT and New South Wales.

Unpublished at this stage?---I think some of it might be published, it's very new.

Is it consistent with this outcome that has been published?---It's consistent that dispersal responses are very species specific and that sometimes what you think is going to be a poor disperser turns out to be a good disperser and sometimes the other way round, and sometimes what is a poor disperser can end up better off than a better disperser if it means they stay put rather than wandering off into a wilderness, from the beetle's point of view.

It does sound a warning note, though, in relation to the broad-toothed stag beetle, does it not?---Before I'd say it was a warning note, you'd have to know something about if fragmentation was occurring in the eyes of the broad-toothed stag beetle and if so the scale at which it was occurring and then you'd have to design a study accordingly.

Of course the difficulty with that is that there is no present plan to undertake that research?---No, there isn't.

But there are present plans to log Wielangta?---Yes, there are.

It is the wrong way round, isn't it, the research should be done before the logging?---If you wanted to answer this specific question, you could either do it before the logging or if you were looking at fragmentation, how are you going to fragment it? I mean, are we talking natural fragmentation, are you talking some apparent fragmentation through human use of the landscape, there's a lot of ifs and buts there.

So we just don't do the research, we just log and hope?---I didn't say that.

Nor would that be a scientifically responsible approach?---To log and not do anything, that's true.

5 The research should precede the logging?---Well, under an adaptive-management framework you learn through your management and through your research to gradually try and finesse what you do and what needs to be done.

10 And yet we are logging at Wielangta and there is no research to undertake - no research being undertaken at all?---Well, there has been research undertaken, including, you claim, by Peter McQuillan, but not particularly on this genetic issue.

15 Which stands to see the extirpation of the broad-toothed stag beetle in the areas where it has been allegedly reserved in stream-side reserves, for instance?---I don't follow your argument there.

I tender that article, your Honour.

HIS HONOUR: Exhibit CH.

20

EXHIBIT #CH ARTICLE FROM MOLECULAR ECOLOGY JOURNAL

25 MR TREE: Now, can I deal with a number of washing-up sorts of issues, please? Firstly, I asked you yesterday about how it is that your second affidavit came into existence and I think you indicated that it was as a result of a request from Mr McDonald, and I think I am correct in saying that in paragraph 4 of your affidavit on Court book 9, page 2853 - if the witness could
30 have that?---Sorry, what page?

At 2853?---Yes.

35 You actually say in your affidavit that Mr McDonald instructed you to instigate a survey in Wielangta forest in January 2006?---Yes.

40 What was the purpose that you understood that survey to be, or to have?---Well, I think there were two different perspectives on that. There was a legal perspective and there was a scientific perspective.

What did you understand the legal perspective to be?---Your Honour, am I at liberty to discuss that, I thought we had some issues yesterday?

45 Well, if my friend has an objection to this question, he will no doubt take it. What did you understand the legal issues to be?

HIS HONOUR: Legal perspective - - -

MR D. GUNSON: I object to the question, your Honour, it can only be a perspective that is formed as a result of communications between Mr McDonald and the witness.

5 MR TREE: Your Honour, it is patent that the purpose of the communication was to facilitate the production of this report. This is the very issue which your Honour has had argument about in relation to a claim for privilege already and your Honour has, I think, been taken earlier in the proceedings to the Temwell decision. Temwell and DKGR Holdings Pty Limited, its medium neutral
10 citation is (2003) FCA 985. And the substance of that decision says that it is unfair to claim privilege in respect of documents which record instructions suggesting information given or made to an expert witness from which the development of his or her expert opinion can otherwise be inferred, that is at page - - -

15 HIS HONOUR: Well, we haven't got there yet, though, have we, you are just asking what the legal perspective was, I think?

MR TREE: That is so, your Honour.

20 HIS HONOUR: Yes. Do you want to say any more about why that is an objectionable question?

MR D. GUNSON: No, your Honour.

25 HIS HONOUR: I will allow the question.

MR TREE: Thank you, your Honour.

30 What did you understand the legal perspective to be, Dr Grove?---I understood it that because of the allegations that had made previously in Court that the work of Jeff Meggs and Sara Munks was flawed and that there was a data gap there which is being exploited by the Court as evidence for lack of evidence that the species occurs in dry forests, that we ought to do something about it.

35 Sorry. What was being exploited, a lack of data was being exploited?---Yes, the - if I had Meggs and Munks in front of me I could say again, but one of their research needs was - one of the things they said they hadn't done was looked under large logs and that was being interpreted by the Court, as I
40 understood it, that until that's done, you can't say that it doesn't occur in dry forest.

I see. So you are aware that the Meggs and Munks paper identified a limitation
45 in their sampling method based upon a physical inability to move large logs?---Yes.

So the purpose of this was to, what, fill that data gap, was it?---Well, as I say, there was a difference between a legal instruction - a legal - the document that we're not meant to be - I don't know what to say about this.

5 Well, the truth is probably a good start?---Yes, well, I told you what the request from the lawyers was, but how I interpret that before - how it translated into the research that I did was I put some science on it, so that we weren't just going on a hunt, as you're perhaps suggesting, but we tried to make it a - we did make it a scientific study that incorporated both wet forest and dry forest
10 and the issue under investigation was whether or not broad-toothed stag beetles, or the extent to which they make use of large logs.

You felt you were being leant on, didn't you, Dr Grove, to produce an outcome?---I felt I was being - something was being suggested that I didn't
15 quite see as scientific, so I turned it into something scientific.

You felt you were being leant on to produce an outcome, didn't you, Dr Grove?---That's not what I would say.

20 Because a gap was being exploited. What did you understand the word exploited to mean when you used it?---Well, as something that lawyers are very good at is picking up on gaps in arguments, gaps in logic and making the most of them.

25 Of course it could be that there was some scientific force to the criticism that was being made, perhaps the exploitation was legitimate?---Well, there was some scientific force which is why Meggs and Munks actually noted in their review that that is a limitation of their research.

30 Did you feel some pressure on you to come up with an outcome?---No.

Not at all, Dr Grove?---Not at all. We didn't know as we conducted the research what the outcome would be, but we set it up in such a way that it wasn't going to be biased, we weren't just going to look at dry forest, we were
35 going to look at dry forest and wet forest because the issue that was identified by Meggs and Munks was to do with large logs.

Might the witness have exhibit 11 before him, please, your Honour?---Thank you.
40

If you turn to page 24, I am not sure if it is actually paginated, but it is the page after page 23?---Yes.

That is the tabulated summary of what you found by log rolling?---Yes.
45

And if we flick back to page 20, that is the tabulated summary of what you obtained by pit-falling?---Yes.

Now, do I understand that you found no live latidens, in other words broad-toothed stag beetles, by log rolling?---Yes.

5 And am I correct in saying that you found no live broad-toothed stag beetles by pit-falling?---Yes.

And would it be fair to say you didn't find many beetles at all?---Yes.

10 In fact that is quite remarkable, isn't it?---In what sense?

Even the very common lucanid beetles weren't detected in what you would have expected to find, the numbers you would have expected to find?---Well, we didn't have any expectations really.

15 Well, you would not expect the relative proportions of the broad-toothed stag beetle to other lucanid species to be about the same would you, you would expect there to be substantially greater numbers of more common species?---It depends on their habitat requirements, so no.

20 Well, the lucanid beetles have a number of members of their genus in the Wielangta area don't they?---Yes.

25 And you have sufficient knowledge about those particular species to know which are the more common do you not?---The commonly encountered? Yes?---It depends on the technique, but yes.

30 And would you agree with me that there was a surprising lack of even the common lucanid beetles?---Well, I didn't have any preconceptions as to how common the common, what you are calling common beetles would be under large logs either.

35 Are you familiar with - sorry, let me ask you, the most abundant stag beetle would be lissotes obtusatus, o-b-t-u-s-a-t-u-s?---It depends on your - how you're defining abundant.

It is the most abundant stag beetle in the forests of South East Tasmania isn't it?---I don't know. On what definition?

40 The most evident in numbers?---By what sampling technique. This is the point I'm making, until you look and you can compare relative - - -

45 HIS HONOUR: Well, Dr Grove, you either know or you don't know, it is not your role to interrogate counsel?---Sorry, I apologise, I don't know because the question cannot be answered as simply as that.

MR TREE: Would it not be a fair inference to draw from your research or from the outcomes of your research that it was a bad time to go looking for beetles of any type?---No.

5 Well, you do not know on your last answer, do I understand it to be, that the relative abundance in South East Tasmanian forests of obtusatus?---I say it's specific to the sampling technique that you're using.

10 Well, you did both sampling techniques there didn't you?---We did two sampling techniques, yes.

Well, they are the two main sampling techniques and you found a total of three of them?---No. We didn't do hand searching under small logs, for instance.

15 Your research outcomes are just as consistent with it being either a bad year for beetles of any persuasion, or the wrong time of the season to go looking for beetles of any persuasion?---Strictly speaking you could draw that conclusion, but that's not the most parsimonious explanation. Science generally teaches you to draw on the most parsimonious explanation before you think of less
20 parsimonious ones.

Do I see any identification of ranking of less parsimonious interpretations of your research?---No, you don't.

25 Why not?---I didn't consider it necessary. I mean to take a silly example you might find a correlation between the abundance of beetles and the price of gold on the Australian stock exchange, but I wouldn't put that in either.

30 It is a legitimate interpretation of your research I want to suggest to you, one of a number of competing legitimate interpretations, that you were there in a bad year or the wrong time of year?---It's a possibility.

35 To which you do not advert at all in your paper?---No. My expert opinion is that it's such a small possibility that it wasn't really worth talking about in the paper.

40 But to understand whether it is a remote possibility or not you would need to have some understanding of the expected abundance of subspecies that you detect?---Can you say that again?

To understand whether that is a legitimate interpretation or not, you would need to have something against which you are comparing the number of specimens that you found of all of the species wouldn't you?---By the same technique?
45

Yes?---In other years, for instance?

Yes?---Well, I mean that would help to answer your question.

Without that information you can't answer my question?---No, you can't.

5 So why jump to the conclusion that just happens to suggest that perhaps the broad-toothed stag beetle doesn't exist in dry forest?---I didn't jump to that conclusion.

10 It is equally consistent with the research outcomes that you were there at the wrong time or in a bad year?---But less parsimonious.

Indeed, if I look at the map which is appended to your affidavit in volume 9, we see telling evidence of the difficulty in predicting the occurrence of this beetle don't we?---Yes.

15 If we look, for instance - - -?---Can I have the map in front of me, I don't know what page - - -

I am sorry I didn't realise you didn't.

20 HIS HONOUR: Where do we find the map?

MR TREE: It is exhibit 6 to the affidavit.

HIS HONOUR: To which affidavit?

25

MR TREE: To his affidavit in Court book 9.

30 If we look at the point which is the most obliterated point on the map I suppose is the easiest way to describe it, it appears to be in coupe 2B but I think that is probably incorrect. Do you see a point there that has three dates on it; 1995, 1996 and 2005?---I do, yes.

35 And we should interpret that as meaning effectively the same area was sampled over three successive periods?---On three separate dates in three separate years, yes.

It was sampled in 1995 or there was a trap set there in 1995. It was not recorded?---It was recorded in 1995.

40 Sorry, I am reading that as being 1995 as in red?---Yes.

Sorry, which is recorded. That is correct. Recorded in 1995?---Yes.

Not recorded in the very following year?---Yes.

45

And yet recorded in 2005?---Yes.

Which tends to suggest, doesn't it, that the only real interpretation of the results taken Wielangta-wide of all the sampling is that this beetle is very rare and has been found in a variety of habitats?---I don't disagree that it's very rare and it has been found in a variety of habitats, yes.

5

Including wet forest?---Yes.

Including damp forest?---Yes.

10 And dry forest?---Yes, it has been found in dry forest.

In your affidavit of 5 April you went beyond the instructions that you referred to in paragraph 4, didn't you?---I don't know. You better explain.

15 Well, paragraph 10 doesn't relate to an instigation of a survey in Wielangta, does it?---No.

When were you instructed to provide evidence along the lines of what is in paragraph 10?---When was I instructed to do that?

20

Yes?---I am afraid I don't know the date but obviously before 5 April.

How were you instructed to provide evidence such as appears in paragraph 10?---I believe in an email from John McDonald.

25

I call for that email.

HIS HONOUR: Mr Gunson?

30 MR D. GUNSON: I am just making some inquiries, your Honour. We don't appear to have it with us at the moment, your Honour. We note the call and can do no more than that at the moment.

HIS HONOUR: Thank you.

35

MR TREE: Prior to receiving that email from Mr McDonald had you been aware of the evidence of Dr Bekessey?---Yes.

40 Because you were present in Court during her evidence, weren't you?---I was present during some of it, yes.

You were aware that the exchange in her cross-examination in fact commenced not at page 1018 but in fact at 1017?---I don't know I am afraid. Can you remind me of the - - -

45

I am not sure whether the Court has a copy of the transcript that can be forwarded to the witness. Page 1017?---Thank you. Can you repeat the question please?

Sure. I will start again. In paragraph 10 of your affidavit you refer to page 1018, line number 8?---Okay.

5 Were you provided with all of the transcript of Dr Bekessey's evidence or just that page, 1018?---No, I saw the whole thing.

All right. Well, the relevant passage commences on page 1017 at about line 18, doesn't it, in the cross-examination? Question:

10

And after leaving the University of Melbourne until you received that in 2005, is it correct that you did not have possession of the landscape model?

15 To which the answer was:

No, because the reason why we did this 2005 version was that this new technology that I showed you came along. So previously it wasn't easy to do that landscape modelling at all, that's why we had to do this 2005 revision for publication as requested by Forestry Tasmania.

20

?---I read that yes.

And that is correct, isn't it?---I think it's disingenuous.

25

Well, let's do it brick by brick. Forestry Tasmania wanted a published outcome of the research, didn't it?---Yes.

30 Forestry Tasmania would not have wanted a published outcome that was not reflective of the best technology available at the time of publication?---We weren't concerned the technology. We were concerned about whether it reflected the valid model, not the technology that produces the output of the model.

35 Well, you would have wanted the most up-to-date technology - - -?---No, not necessarily.

The best technology?---Not necessarily.

40 Well, why wouldn't you have wanted the best technology?---It's not that we didn't want it. It's just - it wasn't an issue.

HIS HONOUR: Well, that is all you have been asked?---Sorry.

45 That is all you have been asked?---Yes. So can you repeat the question again please.

MR TREE: You wanted the best technology, didn't you?

HIS HONOUR: So if the best technology was available you wouldn't want it, you would want some inferior technology - - -?---That's why it is a difficult question to answer. The technology isn't an issue to us. It's the model itself.

5

All other things being equal and you had a choice of a range of technology, would you take the best available one?---I suppose so, yes.

Mr Tree?

10

MR TREE: And that is what Dr Bekessey did, used a better, newer technology?---She did do that, yes, but that's not all she did.

To produce a publishable outcome?---Yes, but that's not all she did.

15

You provided her or you were part of an email exchange with her, weren't you, in relation to pressing her for outcomes?---Yes.

Could the witness be shown exhibit 22 please, your Honour, and 21. It is convenient to have them both before him.

20

It is probably best - you will see this is a chain of emails in exhibit 22 if you have got that in front of you?---Yes.

25

And I think it is best if we start at the final page or the second last page of it and you will see that that is an email from you to Dr Munks?---Yes.

Sent on 16 September 2004 at 10.24?---Yes.

30

To which somebody has written on the exhibit "Carbon copy Sarah Bekessey"?---Yes.

Do you recognise the hand-writing there as Dr Munks'?---No, I don't.

35

I see. And you wrote to Dr Munks:

Dear Sarah, could you please let me know where you are at with any plans for publishing the platypus work that appears in the University of Melbourne report. We are keen to see the chapters published in peer review publications and I would like to keep tabs on who is progressing which chapter.

40

If you then look across at exhibit 21?---Yes.

45

You will see that a very similarly phrased email was sent to Bill Brown of DPIWE in relation to the wedge-tailed eagle work?---Yes.

It would seem fair then, wouldn't it, that you were chasing up all of the authors in relation to - well, the relevant responsible researchers in relation to each of the species in the PVA?---Yes, that's fair.

5 If we go back to exhibit 22 we see that in fact there is an email sent to you from Dr Bekessey - somewhat confusingly it appears in top of the platypus model but deals with the eagle and other species as well and you will see it reads:

10 *Sorry for not replying sooner. I have been flat out with teaching and a bit overwhelmed. I am really keen to publish the eagle, platy and possum models and am right onto it. I am sending a draft of the eagle paper around after the weekend. Best wishes, Sarah.*

15 ?---Yes, I see that.

To which you respond, going back a page:

20 *Very pleased to hear it, the progress bit, not the overwhelmed bit, which I can relate to, and thanks for keeping me informed.*

?---Yes.

25 You were authorising the continued work for publication?---I was authorising - I was very pleased to hear that she was sending a draft of the eagle paper around after the weekend, but I didn't receive such a draft as far as I remember.

30 Well, is that your criticism of her, that she was a bit slow in getting it to you?---No, one of the main criticisms is the way we got to see - the way I got to see what I was in the draft of the eagle paper was through the Court proceedings here and not through the normal process. The reason I was interested in receiving a draft of that paper was because I would have imagined that I would have been able to pick up at that very early stage at that stage, the extent to which Sara was remodelling, developing new models, putting new
35 information in.

You already had a 2004 version of the outcome of the model, didn't you?---Is that in the Fox Report, you mean?

40 Yes?---Yes.

Well, it needed to be, from 2004, put into a publishable form?---Yes, that was our impression too.

45 And that is what has occurred?---It hasn't occurred how we - how I believe it was agreed that it should work. As I understand it, the paper that was produced as an attachment, I think, to an affidavit or - that arose through this Court at least, was the results of some remodelling, there's some new

information added, and not what I would consider simply a means of publishing the model as it was in the Fox Report.

5 Not new information, new software that had been applied - new
technology?---I believe it was more than that. I appreciate - I realise that I'm
extending into the expertise of Steve Reed rather than myself, so my
understanding is that there were significant changes, which is why we were
particularly unhappy about it, and had she come to us at an early stage we
could have resolved what the issues were and had a paper that we were all
10 happy with.

A paper that predicted on any scenario the likely extinction of the wedge-tailed eagle in Bass?---No, that's not what I said.

15 Am I correct in saying that from a personal perspective the outcome of the modelling in relation to the eagle was a shock?---On the face of it, yes.

And a potentially embarrassing outcome for Forestry Tasmania; would you agree?---Well, it has proved embarrassing because it's been used against
20 Forestry Tasmania in many ways, but - - -

Is that the source of the angst, that which we commission with a view to publication has now come back to harm us?---No, the source of my angst is that a model could be produced and waved around without further input and without appropriate peer review.
25

You mean without an opportunity to try and dilute the force of the outcome?---No, I don't.

30 Finally, can I return to the model which you undertook in relation to coarse woody debris, but in the context of the broad-toothed stag beetle specifically? Firstly, would you agree with me that the model which you have produced in your initial affidavit doesn't accommodate - or doesn't allow ascertainment of what component of the total coarse woody debris is in what decay class?---I
35 agree.

That is an important fact in relation to the broad-toothed stag beetle, isn't it?---I'm not sure it is actually. I know Jeff Meggs and his work suggested a prevalence in the early decay stages.
40

Yes. Precisely?---But I don't know if that is an example of - that was what was easiest to sample, is not apparent from this paper.

45 Well, the only work which suggests a connection with a particular decay state is Meggs and Munks, 2003?---I believe that Sara Munks' report also talks about decay states associated with the records that they found, and I believe that those were generally later decay stages, or included later decay stages.

5 If the decay state or class of coarse woody debris that is best for the broad-toothed stag beetle is early-decay class and one were to look at your affidavit at page 825 of Court book 3, would I be correct in saying if we selected the figure, for instance, at 80 years, where the volume of coarse woody debris is down as logging residue as 178.05 cubic metres per hectare, inevitably that would nearly be entirely in a later decay class?---It would be mid to late decay stages, yes.

10 So if the broad-toothed stag beetle has a preference for early-decay class, the volume figure there is not reflective of the volume of ideal habitat?---That's true.

15 Similarly, if it has a preference for diameter class, your figures do not allow an ascertainment of that?---That's true.

And am I correct in saying that your model doesn't accommodate the prospect of increased wind throw in the early years, post harvest?---That's true.

20 Which is a known phenomena?---It can occur, yes.

Yes. Also it does not accommodate what we were talking about earlier this morning, the impact of crushing of coarse woody debris by machinery?---That's true.

25 Have you got on your list of things to do, to do a better prediction of this model?---Yes.

When do you anticipate doing it?---Probably in a year or two.

30 It is just not on top of your list of priorities, I suppose?---Well, actually something happening in a year or two is quite high up the list of priorities, we've got lots of priorities.

35 But that won't stop the logging, will it?---No. Well, the logging has already happened.

Not in 19D it hasn't?---No, it hasn't.

40 Your Honour, that concludes my cross-examination of this witness save for the issue about the instructions given in relation to the second affidavit, which your Honour might remember there is a call for an email which has not been produced. So it may be there is further questions after that.

45 HIS HONOUR: Yes. Mr Gunson, do you want to re-examine at the moment, or would you prefer to defer that till it is determined whether or not there will be extra questions?

MR D. GUNSON: I am happy to re-examine. My re-examination will be reasonably short, your Honour, and that issue can be dealt with separately at a later time.

5 HIS HONOUR: There may not be a need for the witness to return?

MR D. GUNSON: That is right, your Honour, I need to discuss the issue with Mr McDonald. He needs to check and satisfy himself as to whether there is or is not the document that is the subject of the call.

10

HIS HONOUR: Well, after you conclude your re-examination I can excuse Dr Grove, subject to the possibility that he may have to return to deal with that discrete issue.

15 MR D. GUNSON: Yes, your Honour, that is correct.

<RE-EXAMINATION BY MR D. GUNSON

[12.21pm]

20

MR D. GUNSON: Dr Grove, you were asked yesterday by my learned friend, Mr Tree, whether you would check your computer diary. Remember being asked questions about that?---Yes, I do.

25

And you were asked prior to that whether you had gone to Wielangta with Dr Shields, I think, on 2 November 2005, and Mr Tree said:

30

And would you overnight be able to access it retrospectively, I suppose of what I am asking you?---To find out appointments that I had with Jim Shields?

Was your question. And he said, "Or other people, yes." Now, did you check your computer to ascertain whether your went to Wielangta on 2 November 2005 with Jim Shields?---I did, yes.

35

And what did you ascertain, if anything?---I can't find any record that I did go there.

40 Yes. And are you able to say where you were on 2 November 2005?---It's funny, I didn't think about that, but I've got a feeling I would've been in - - -

Let me ask you, did you take leave last year towards the end of the year?---I was going to say I might have been in China at the time, I can't remember, I'm afraid.

45

Did you find any record of having been to Wielangta with Jim Shields?---No.

Thank you. Now, by 2005, when Sarah Bekessey started the remodelling, had Forestry Tasmania received a report on the PVA and the multi-species modelling?---Yes, the Fox report.

5 Yes. When did you receive that?---I don't recall, but I think it's got a date on the front of it, hasn't it?

I would like you to have a look at this document. Could that be passed to the witness, please?---Thank you.

10

Was that the Fox report that you received?---Yes.

Yes. Are you able to indicate to his Honour when that was published?---February 2004.

15

Yes. Well, I tender that, your Honour.

HIS HONOUR: Exhibit 38.

20

EXHIBIT #38 FOX REPORT PUBLISHED IN FEBRUARY 2004

MR D. GUNSON: I have no further questions of Dr Grove.

25

HIS HONOUR: Dr Grove, thank you for your evidence. You may be excused from further attendance, subject to the possibility of returning in the way we mentioned previously?---Yes, thank you.

30

<THE WITNESS WITHDREW

[12.23pm]

HIS HONOUR: Mr Gunson?

35

MR D. GUNSON: Yes. Your Honour will need book 5.

HIS HONOUR: Thank you.

40

MR D. GUNSON: And could James Michael Shields be called, if it please.

MS MORTIMER: If your Honour can just give us a moment to just rearrange again.

45

HIS HONOUR: Certainly. Page 2492; is that correct?

MR D. GUNSON: Yes, 2492, your Honour. Yes. Now, if your Honour would just bear with me for one moment, I will approach my learned friend on an issue.

5 HIS HONOUR: Certainly.

<EXAMINATION-IN-CHIEF BY MR D. GUNSON

5

HIS HONOUR: Yes, Mr Gunson?

MR D. GUNSON: Dr Shields, you are James Michael Shields?---Correct.

10

And you reside at 7 High Crescent, Turra Beach in New South Wales?---Yes, I do.

15

And you are a wildlife manager; is that correct?---That is correct.

In your affidavit - or directly - can you be shown the affidavit, please, of 22 November 2005? Mr Associate, it is page 2492.

20

Just have a look at that document if you would, Dr Shields. You swore an affidavit in these proceedings on 22 November 2005?---I did.

Does that appear to be a copy of your affidavit?---Yes, it does.

25

And is your affidavit true and correct?---Yes, it is.

Subject to one matter, your Honour, that is the evidence-in-chief of the witness.

HIS HONOUR: Yes.

30

MR D. GUNSON: I seek your Honour's leave just to ask one or two questions of him concerning his curriculum vitae.

HIS HONOUR: Yes.

35

MR D. GUNSON: In your affidavit you set out your academic qualifications and various positions you have held; is that correct?---That is true.

40

Have you omitted two appointments that you hold, from your affidavit?---My affidavit is missing several appointments. I tried to limit them into ones that were relevant to the case. I think the two that are most relevant that I might include are positions at the University of Seattle and Macquarie University in Sydney.

45

And in respect of the first university, what position do you hold there?---Upon checking my positions there are Associate Lecturer and Honorary Professor of Wildlife Management.

Yes. And with respect to Macquarie University?---Lecturer and Honorary Professor of Wildlife Management.

Yes, thank you. That is all I have, thank you, your Honour.

5

HIS HONOUR: Yes, thank you. Yes, Ms Mortimer?

<CROSS-EXAMINATION BY MS MORTIMER

[12.27pm]

10

MS MORTIMER: Dr Shields, you I think received through Mr McDonald an order made by his Honour that you produce a number of different documents; is that right?---That's correct.

15

And my learned friend Mr Gunson tells me that you have a folder with you that answers that order; is that right?---I do have that in my possession, yes.

All right. You have it in the witness box with you?---I do.

20

Can I just ask you to get it out, please? And that is it on the witness box?---That is it before me.

All right. Do you have a copy of the order that his Honour made? I just want to run you through it and ask you to identify each part of it for me?---Yes, I do.

25

All right. So if you just take the order out, please, and have that in front of you?---Yes.

Now, the first thing that you were asked to produce was all field notes or other documents related to the visit by you to Wielangta, referred to in paragraph 7 of your affidavit. Do you have anything that answers that description?---Yes.

30

Can you perhaps hand that to his Honour's associate, and his Honour's associate will give that to me?---Yes.

35

All right. The second thing you were asked to produce is all notes containing, evidencing or referring to the personal communications between Slade Williams and Dr Grove and you, referred to in paragraph 25. Do you have anything that answers that description?---With regard to Slade and Williams, yes, I do, and is in my hand here. My discussions with Dr Grove were mainly verbal and any notations I took are on those pieces of paper that you have just been handed from my field trip.

40

Right. Thank you. The third thing you are asked to produce are some items out of your curriculum vitae under the heading Conference Proceedings, items 4, 6, 19 and 22. Do you have those?---I have material that answers them.

45

Is it complete? That is, do you have something that answers each of 4, 6, 19 and 22?---Item 4 was a verbal presentation at the Royal Australasian Ornithologists Union Conference in Armidale. There was no proceedings of that conference recorded. However, the same material was published in a peer-reviewed scientific paper, and I have the reference for that paper here on this sheet before me.

And as to items 6, 19 and 22, do you have something that answers those?---Item number 6, I have something that answers that directly, a photocopy of that paper, and the same for number 19.

And 22?---If I may correct myself. Number 19 was also a verbal presentation at a seminar in Northern California. The test was not published in the proceedings to my knowledge but it was published in a chapter of my dissertation which I have with me here and can give to you.

All right. Well, we will just leave your dissertation because I think we asked for that separately, didn't we?---Yes, and it covers other points.

Yes, so just give me the bundle that answers item C if you wouldn't mind, Dr Shields?---Okay. That's for number 6 and this for number 22.

All right. And then you were asked to produce items 2, 4 and 7 under the heading Invited Papers. Do you have those?---Items 2 and 4 were verbal presentations that formed chapters in my PhD dissertation. One was a chapter on the effect of logging. The other was a resource matrix for foraging patterns and they are contained in the dissertation. Item number 7 was a verbal presentation at the Maurice Wyndham Conference in Armidale. It was a presentation given in the forest at compartment 254 Toulambi State Forest and to my knowledge no recordings of proceedings of this conference were published.

Thank you, Dr Shields, and perhaps if you can then hand over your dissertation and anything else that you have got that answers that. Thank you. Right. Now, then under paragraph 2 you were asked to produce printed copies of a number of things. Firstly, all drafts of your affidavit in those proceedings including those stored electronically. do you produce anything in answer to that?---Yes, I do. I have copies before me.

Thank you. Well, perhaps anything that answers that description if you can hand to his Honour's associate please?---Yes, I will.

You were then asked for all emails and correspondence to and from you in relation to your affidavit and any report prepared by you in relation to these proceedings. Do you have any documents that answers that?---I do have documentation. I should note to the Court and our colleagues that I regularly delete and update my computer business to remove all unnecessary and not useful communication for the future but I have retained an archive file of

important documents. I provide those and I have also asked my colleagues at Forestry Tasmania to provide to me emails that they may have kept and they have done so.

5 All right. So you have a bundle that answers that description?---Yes, I do.

Thank you?---I did not get the opportunity to consult with our counsel before this bundle was presented. It is divided into two piles here. I might assume that some of these were adjudged to have - - -

10

All right, Dr Shields. Are you saying that you haven't had an opportunity to speak with either Mr Gunson or Mr McDonald about whether some of those might be subject to a claim for some kind of privilege?---This is correct.

15 All right. Well, are you able to sort them into two piles or are you wanting some assistance from Mr Gunson and Mr McDonald about that?---I think it would be most prudent to have some assistance. It would not take very long and we can provide them to the Court after lunch.

20 All right. Well, perhaps if you keep those with you and you can - your Honour, I don't have a difficulty with those being produced to my learned friends and they can - if they need to discuss that with Dr Shields. Perhaps it would have been more convenient if that had already happened but I don't have a problem with that happening while he is under cross-examination.

25

HIS HONOUR: Certainly. Can that happen at lunch time?

MR D. GUNSON: We will attend to it at lunch time, your Honour.

30 HIS HONOUR: Thank you.

MS MORTIMER: And is that bundle, Dr Shields, one that answers the description in (b), (c) and (d) of paragraph 2 or is there more?---I have some hand-written correspondence that relate to the preparation of my affidavit with regard to (b) and with regard to (d) I have had no correspondence or communication with the Forest Practices Board.

35

All right. Now, the hand-written correspondence is that something that you want to have an opportunity to discuss or you can just produce that?---I can produce that now.

40

Now, Dr Shields, just before we leave the documents that you have produced, as I understood your answers to some of my first questions about these, you said that any notes that you had of your conversations with Dr Grove were included in your field notes related to the visit by you to Wielangta. That is as I understood what you said?---That is correct. I also said that most of my - the substance of my discussions with Dr Grove were verbal.

45

All right. And did you have those discussions with him at Wielangta or somewhere else?---There was discussions I had in Hobart and in transit in travelling around Hobart.

5 All right. So he was in the car with you at some stage and at Forestry Tasmania's offices but he didn't go out to Wielangta with you. Is that right?---That is correct.

10 Thank you. Dr Shields, I just want to run through with you the information sources that you have relied on in the preparation of your affidavit and you set those out at paragraph 6 on page 2498 of the Court book so can I just ask you to go to that please. If you look in the bottom right hand corner you will see the page numbers so it is 2498?---2498 of this document?

15 I am sorry, you should have book 5?---Book 5, yes.

All right. See the heading Document and Materials Examined and Field Inspections Undertaken?---I do.

20 Good. And now have a look at paragraph 6 please and under the heading (h) you list a map of Wielangta Forest block showing nest sites and tenure provided by Forestry Tasmania. Can Dr Shields be shown exhibit LE7 please which is one of the big maps.

25 HIS HONOUR: To Mr Ellis' affidavit?

MS MORTIMER: To Mr Ellis' affidavit. Is that the map that you are referring to in paragraph 6(h), Dr Shields?---It's not the specific map but it is a map of the same area.

30 All right. So you didn't see that map. You saw a different one, did you?---I certainly didn't see the map that I am holding before me.

35 All right. Well, I will ask you to put that down to one side. Who showed you the map?---The map was presented to me by John Hickey in the office, and I discussed it with some people that I took the field trip with. That was where it came from, and to my recollection I left it on John Hickey's desk when I left at the end of the trip.

40 The - well, we might come back to that. And so can I take it that that map that you have just been shown you have not seen before?---I certainly have not seen that specific map.

45 Yes, that specific map. Sorry, Dr Shields, that is what I mean. All right. And so the thing that answers the description in 6(f) of your affidavit, information sources - can Dr Shields be shown book 3, please, and Mr Ellis' affidavit which starts at page 780? Now, can I ask you to turn to page 809 of that, Dr Shields?---Yes.

Now, you see that is entitled Annexure LE6, Analysis of Swift Parrot Nest Sites Within Wielangta Forest Block. Have you seen that document before?---No, I've not seen this document.

5

Right. So that is not what you are referring to in 6(f)? Just refresh your memory if you don't mind, please, of what you say in 6(f) on page 2498, which is:

10

Swift parrot potential habitat model and tenure analysis -

it is not that?---Yes, I see that. I understand what you are looking to find. I think that what you're looking for was included in my affidavit at the back of it. I included the swift parrot model about which I was talking.

15

Remind me, Dr Shields, where we might find that?---Page 02531.

All right. So that is what you refer to as 6(f); is that right?---That's the documentation that I included to provide clarity in my affidavit for 6(f), yes.

20

Well, Dr Shields, I am sorry if this sounds pedantic but I do want to understand this very clearly. When you say that you have based your evidence on the following sources of information, you say you have based your evidence on (f):

25

Swift parrot potential habitat model and tenure analysis prepared by Forestry Tasmania.

Is that the document at 2531?---Yes, it is.

30

Thank you. And - - -?---I must be clear here, and I am trying to be brief and clear. In making a model it can't adequately be summarised on paper, all you can do is give some indications of what the parameters in the model were, and this is where I included to do that. A model isn't a piece of paper, it's a series of probability layers and you might produce a map out of it, but you can describe it in some way in words and that is what this is.

35

Well, Dr Shields, as I understand what you say in (f), what is at 2531 is not something that you produced, it is something that Forestry Tasmania produced; isn't that right?---Yes, absolutely.

40

Yes.

HIS HONOUR: Is that a convenient time, Ms Mortimer?

45

MS MORTIMER: If your Honour pleases.

HIS HONOUR: We will adjourn until 2.15.

ADJOURNED

[12.46pm]

5 **RESUMED**

[2.17pm]

JAMES MICHAEL SHIELDS:

10

HIS HONOUR: Yes, Ms Mortimer?

15

MS MORTIMER: If your Honour pleases, I understand that my learned friend has had an opportunity to look through that pile of documents over lunch.

And Dr Shields, do you have that pile of documents with you in the witness box, do you?---I do.

20

Thank you very much. And perhaps I will just inquire of my learned friend whether there are any that have been not produced on the grounds of privilege?

MR D. GUNSON: Yes, there are a couple.

25

MS MORTIMER: Perhaps if my learned friend could just indicate how many and what the grounds are.

30

MR D. GUNSON: Well, I would need to go and get them from our room, your Honour. We didn't bring them in, but I can address that later on to save time.

35

MS MORTIMER: Now, Dr Shields, I was asking you about your information sources that you list in paragraph 6. The - in 6(g) you list as a general sort of topic other relevant scientific literature. Can I take it that if not entirely, then at least in large part, that literature is what we see at the end of your affidavit under the heading References?---Yes.

And would that be a complete list of what you have looked at?---No.

40

Now, in 6(j) you say that you have based your evidence on something that you call DPIWE subpoena information. What was that, what did you see?---I have the documents here that I can hand over to you I think. To summarise, it was a series of questions put to DPIWE by Forestry Tasmania and the responses from DPIWE to those questions which I do have in written form and can provide to you.

45

All right. Could I perhaps, if you have got them there, can I have a look at them, please?---Yes, if you will beg indulgence to find it.

Sure?---In the documents with the Forestry Tasmania letterhead are the questions and in the ones entitled Response to Forestry Tasmania's Questions are the answers.

5

All right. Perhaps if hand those over, thank you. Now, aside from the matters that you have listed in paragraph 6, you then also talk in paragraph 7 about a field inspection that you undertook of three coupes, 17E and 19D which are two of the coupes - the two coupes expressly named in the proceeding, and 7A.

10 What was your understanding of why you ought to look at 7A?---It was my request.

Why?---I wanted to see it.

15 Why?---To determine whether or not logging had effect on swift parrots.

What did you know about 7A that made you make that request?---Nothing.

20 Did you - how did you know that there was a coupe called WTO7A?---I asked to be taken to a coupe that hadn't been under consideration and might be swift parrot habitat.

All right. And that was a request you made of Mr McDonald, was it, or someone else?---Yes.

25

And the coupe - - -?---Yes, Mr McDonald.

30 All right. And the coupe that was identified for you by Mr McDonald as being not under consideration in this case but possibly swift parrot habitat was 7A, that is your understanding in any event; is that right?---Yes.

And you went on this field inspection on 2 November only with the four people that you have listed in paragraph 7?---Yes.

35 And Mr Mick Brown, is he a scientist that works with Forestry Tasmania; is that your understanding?---I know Mick Brown mostly as a colleague, as a botanist in the scientific world. I served with him on the ANZAC standing committee to prepare the reserve criteria for the national forest policy.

40 I will just ask you my question again, Dr Shields?---I'm sorry.

It was whether Dr Mick Brown works for Forestry Tasmania?---I have no idea.

You don't know who he works for?---That's correct.

45

And you don't know, therefore, how he came to be on that field inspection?---Yes, I do, I know he's an expert on plants in Tasmania and was invited along to provide botanic expertise.

All right. And Sandra Roberts, did you know that she works for Forestry Tasmania?---Yes.

5 And did you ask her to come along because she is a hydrologist?---I didn't request any personnel to come along, I just rode along in the truck.

And so you don't know why a hydrologist might have accompanied you on this field inspection in relation to swift parrots?---My memory of the day, no.

10

HIS HONOUR: Did you say you are not sure whether Mick Brown is a member of staff of Forestry Tasmania?---I don't know Mick Brown's current employment status.

15 Well, can you look at the last sentence on 2498 of your affidavit? Did you write that yourself?---Let me just look. I did know that Mick Brown had worked for Forestry Tasmania in the past, I hadn't seen Mick for five or six years and I did not know or inquire of his employment status at that time.

20 MS MORTIMER: I think the point, Dr Shields, that his Honour is making is that in your own words - if they are your own words - you identify Dr Brown as a member of Forestry Tasmania's staff?---I see.

2498?---I would suggest that that's a construction of my - a result of my sentence construction rather than any implication of employment.

All right. You say in paragraph 7 that the things that you examined on this field inspection were past logging. Where did you see that?---We observed past logging in the coupes that were our destination and en route to them.

30

Which ones were examples of past logging?---I wasn't referring to any specific coupes as past logging, I didn't have any specific area in mind when I wrote that.

35 All right. Now, what did you see that you have described here as habitat-clump retention? Where did you see that?---Could you remind me of the coupe numbers again?

40 Well, you can have a look, Dr Shields, at paragraph 7 on page 2498, if you are going to find it easier to follow the questions that way. My question is where did you see habitat-clump retention?---I can't recall precisely, it was in one of the two target coupes that we went to.

45 All right. Where did you see bird communities present?---I observed bird communities in all of the coupes we visited.

Which bird communities did you observe?---Those typical of wet sclerophyll forest.

The species, Dr Shields, which birds?---I believe you'll find them in my field notes, but from memory there were yellow-wattle birds, strong-billed honey eater. If you will indulge me a moment?

5

They will be listed - no, well, I won't stop to take too much time. You say they will be listed in your field notes, whatever you observed?---Yes.

10 Right. Thank you. Now, you say you saw a known swift parrot nest site and I want you to look at what you say in paragraph 30 of your affidavit on page 2505 to 2506 and tell me whether the nest that you talk about in paragraph 30 is the same one that you are referring to in paragraph 7? 2506, up the top, about four lines from the top, you say the single nest that I observed in Wielangta. That is the same nest that you are referring to in paragraph 7, is it?---Yes.

15

And that was one that was located fairly close to the road that leads up to coupe 17E and 19D; is that right?---Yes.

20 In fact, about 15 metres away from the road; would that be right?---Yes.

And who pointed that out to you?---I believe Mick Miller was the individual who pointed it out that it was - yes.

25 All right. And you say in paragraph 7 that you saw a site logged eight years previously. What was that?---It was an area that was identified to me as one that had been logged eight years in the past.

30 You don't remember which coupe that was?---No. I believe we stopped there on the way home.

All right. Remnant rainforest, was that a little public trail where you walk through - do, sort of, a loop round the rainforest, was it?---Yes.

35 Right. And then you say, Dr Shields, that you traversed the local landscape and the urban interface of Hobart. What does that mean?---We drove from Hobart to the coupes.

40 Wouldn't it have been easier just to say that?---Well, I purposely used that language to indicate that I used the time to observe habitat along the way and ask questions of the people in the car with me about that habitat and about the landscape.

45 All right. And it was during that car trip, or at least part of it, that you had a conversation with Dr Simon Grove about where he might have seen swift parrots; is that right?---No, that's not. Dr Grove was not present on that trip.

No, but I thought you had agreed with me earlier before lunch that you saw him at Forestry Tasmania and he was in the car with you and you had a conversation with him. I thought that was your evidence?---Yes, that was on my next trip there on 21, 22 November, he took me to the airport.

5

Well, what is this trip on 21 November, you came to Tasmania on that day did you?---Yes, I think you will find that in the notes that you requested about my correspondence.

10 That was for the purpose of finalising and swearing your affidavit was it?---Correct.

HIS HONOUR: I don't think you swore it in Tasmania did you?---No, I did not, I swore it in Merimbula in New South Wales.

15

You finalised it in Tasmania?---That's correct.

MS MORTIMER: And did you take another trip out to Wielangta on that occasion?---No.

20

And on that occasion prior to finalising your affidavit when you were in Hobart did you have any discussions with anyone from Forestry Tasmania apart from Mr McDonald about the contents of your affidavit?---Yes, I did.

25 Who?---John Hickey, Simon Grove and Maree Yee.

HIS HONOUR: The last one was Maree Yee was it?

30 MS MORTIMER: Now, just going back to the information sources that you relied on, two of the other things that you talk about in paragraph 6(b) and (c) are an affidavit of Mr Whittington and an affidavit of Mr Wapstra. Now, do you recall when you were provided with those?---Yes. Not precisely, but generally in the time between when I started the job on the 1st or 2nd of November and when I finalised the affidavit.

35

Do you remember, Dr Shields, whether what you were provided with were the final versions of those two affidavits or drafts?---I don't remember.

40 Because you see each of those affidavits were sworn on 18 November, a couple of days before yours and what I want you to think back about is whether you believe you were provided with those two affidavits on or after 18 November or before that date?---I don't remember. I have no recollection of when I was provided them.

45 Did you get hard copies or did they come on the email?---I read hard copies, so I must have been provided with hard copies.

And they were not affidavits that you had asked for, is that right?---No, they were affidavits I'd asked for. I hadn't asked for them specifically, I'd asked for information concerning forest operations and information concerning invertebrates.

5

All right, well let us just take that step-by-step. So you had asked, who, Mr McDonald?---I don't recall who I asked.

You asked somebody in Forestry Tasmania?---Yes.

10

For information about invertebrates?---Yes.

And what you were supplied with was in answer to that as you understood it was, what, Mr Whittington's affidavit or Mr Wapstra's affidavit?---Mr Wapstra's, I assume that would be. What I would say and hopefully cut to the chase and be clear, what I was interested in was information on the invertebrates on the compartments in question and information on the operations in the compartments in question.

15

20 All right. And so far as you recollect in response to that request the only two affidavits you got that were as you understood it being relied on by Forestry were those two, Whittington and Wapstra?---No, that's my understanding. They were a source of information about operations on the two coupes involved and the source of information on the invertebrates in the coupes
25 involved and I used them as reference materials, I indicate in the lead paragraph which leads in to paragraph 6.

Could Dr Shields be shown book 5 please?

30

HIS HONOUR: I think he has book 5.

MS MORTIMER: Do you have - yes, you do have book 5?---I've got book 5 in front of me.

35

Because that is your one, yes?---Yes.

Sorry about that. Now, if you turn to page 2286, Dr Shields you will see Dr Whittington's affidavit there. Now, just take a moment to look through that and tell me if that is the one that you got?---As far as I can tell it is. I truly
40 would not know one draft copy from another, I don't think, but the information that I was after is in here.

45

All right. And similarly Mr Wapstra's, you will also find in this book towards the start at page 1925 and just have a look at that and tell me whether that
45 looks like the affidavit that you got?---What was the page number again please?

1925, right at the start?---Again as far as I can tell it's the one that I wrote.

5 All right. And as I understand it from your affidavit, what you are saying about your use of Mr Wapstra's affidavit is that that is the information that you relied on in relation to what the forest practices system in Tasmania was or is?---Not Mr Wapstra's, Mr Whittington's.

Well - - -?---Isn't that correct?

10 Well, you tell me, Dr Shields. If you look at what Dr Whittington - the position that he holds, he works in the Department of Primary Industries, Water and Environment and most of his affidavit has to do with the management of threatened species?---Yes.

15 And if you look at Mr Wapstra's affidavit, most of what Mr Wapstra's affidavit has to do with is the forest practices system?---All right. What I was interested in was the comments on the management of the broad-toothed stag beetle on page 41 of the affidavit from Mr Wapstra and the forest practices information that Mr Whittington put in place with regard to operations concerning threatened species.

20 All right. Well, why don't you take me please to Mr Whittington's affidavit and tell me which part of that you used as part of the information on which you formed your opinion in particular? Which part was it that you were particularly interested in relying on to form your opinion?---It will take me 25 some time to find that but I am most willing to do so.

HIS HONOUR: Is it something that could be done overnight perhaps?

30 MS MORTIMER: Yes, perhaps that is something that you can do overnight, Dr Shields, perhaps in relation to both Mr Wapstra and Dr Whittington. What I would like you to tell his Honour is which parts of those affidavits you particularly relied on?---I would be most happy to do that but it will take some time to find those exact points.

35 You will be able to do that overnight?---Excellent.

HIS HONOUR: 6(b) on 2498 and 6(c) on 2498; can I just direct you to that, Dr Shields?---Yes.

40 Should the words "as filed in this matter" be deleted in each case and the word "draft" placed before affidavit in each case?---That could be the case. I truly don't know.

45 Because your affidavit was sworn on 22 November, Mr Wapstra's affidavit was filed on that day and Dr Whittington's on 18 November?---That is - the wording there was to indicate that my information in those affidavits was what the Court would be reading as well. I do not have any idea about the dates of filing - - -

I was wondering why you refer to "as filed in this matter"?---I suspect I was using a standard text that I have - yes.

5 MS MORTIMER: But it is certainly clear enough, isn't it Dr Shields, in your own mind that you had a version of both those affidavits well prior to a couple of days before you finalised your own?---Well, yes, the time period involved was from 1 November to 22 November and I received the material in time to incorporate it. Both of those formed a very minor part of my affidavit. At this
10 time I was trying to ensure that the Court knew that I was operating with information.

Well, what you say about Mr Wapstra's affidavit appears at paragraph 12 and 13 of your own at page 2500. Can you go to that please? Paragraphs 12, 13
15 and 14 actually. Now, I take it again, Dr Shields, if you look at paragraph 12, what we should understand you really to be saying there is that you have read and understood a version of Mr Wapstra's affidavit, likely not to be the one that was filed with the Court?---Yes, that would be correct.

20 And you have, as I think I suggested to you earlier, taken Mr Wapstra's affidavit as the true and accurate description of what you say in paragraph 13; correct?---Yes.

25 And in terms of the operation of the forest practices system in Tasmania you have not relied, as far as I can see from your affidavit, on anything outside the affidavits of Mr Wapstra and Mr Whittington; is that correct?---Well, the Forest Practices Code document itself and my own experience in the operations and science behind these - - -

30 Just listen carefully, Dr Shields. I am talking about the operation of the forest practices system in Tasmania. Now, I understand that you have some considerable experience in relation to the forest practices system in New South Wales but what I am asking you to focus on is what sources you used for information about the operation of the forest practices system in Tasmania and
35 it would be, as I understand it, 6 (b), (c) and (d); is that right?---No, those are the specific ones I used for this case. For instance I have a long history of interaction with Forest Practices in Tasmania for a wide variety of reasons. I was asked to be a scientific referee of Sara Munks' papers that she published for instance. I have refereed papers on wallaby destruction in Tasmanian
40 forests. I was a member of the research working group for Forestry from 1980 to 1992 and had regular interaction with the people who were developing Forest Practices Codes. I put these references in to indicate that I was up-to-date and had made some effort to familiarise myself with recent operations.

45 What papers of Dr Sara Munks' have you refereed?---I don't recall. I refereed at least two. I referee many papers.

All right. Let me just ask the question again in a different form then. In order to prepare this affidavit did you rely on any sources of information in relation to the forest practices system in Tasmania other than 6(b) and (c) and (d)?---Yes, it is. I relied on the Forest Practices Code.

5

That is 6(d)?---It's 6(d) yes. Yes, I relied on a variety of other information which I do not list specifically because it's of great length in detail, these were the ones that I used specifically for this case and that were provided to me that aren't generally available or are referred to in my reference documents. I can provide you with a list of papers that I've refereed concerning Tasmania forests if you like. I can provide that tomorrow. I think I have the draft manuscripts that I've read.

10

HIS HONOUR: So in paragraph 6 where you say, "I base my evidence on the following sources of information," is that not true, or is that not exhaustive?---That's not exhaustive. I thought it was fairly clear that I would be referring to the specifics for this case and that it's fair too complex to try and list all of the information sources upon which I would write a document of this length, other than in the references that are provided in the normal fashion.

15

20

MS MORTIMER: All right. Now, you say in paragraph 11 that you - particularly when you read it with paragraph 6 - it is the case that you used and relied on the Swift Parrot Recovery Plan; is that right?---In - I think I said what I intend in paragraph 11, that's what I meant:

25

I accept the information in the Swift Parrot Recovery Plan to be generally correct and the best available information source for managing the species.

30

Yes, Dr Shields, my question was you used and relied the Swift Parrot Recovery Plan; is that right?---Yes.

Now, there is a copy of that in the same Court book if you go to page 2387?---Yes.

35

That is the plan you are referring to?---Yes.

If you look at the end of that document at page 2416 you will see a list of references?---Yes, I'm sure they're there.

40

2416?---Yes.

Now, I just want to take you through some of those and ask you if you agree with this. There is Mr Brereton's 1997 paper, do you see that, that is the second entry?---Yes.

45

Have you read that paper?---I'm not absolutely sure, I've read the abstract of it, I'm sure.

You refer to it Dr Shields quite extensively throughout your affidavit?---That's because it's a base document for Brown 1989 or it's a - - -

5 I don't think that can be right, Dr Shields?---Not Brown 1989. I refer to it extensively because it is a recent document that updates the 1989 Brown recommendations and I want to be - answer your question clearly, I'm not absolutely sure I've read the length of that paper, I know I have read the abstract of it and that is what I made the references from.

10

All right, well let me show you a copy of it. I have one for your Honour too.

15 Just take a moment to look through that. Now, having looked at it again, Dr Shields are you able to tell his Honour whether you have read that entire report or a summary of it somewhere?---No, I've read the entire report, but it was when we were doing the regional forest agreements for New South Wales was when I read it and I read the summary and recommendations as a review for this particular job.

20 All right. Now, well I will ask you this, so far as you sit there today in the witness box you don't have any particular disagreements with what Mr Brereton says in that document do you?---No, I don't have any particular disagreement.

25 Your Honour, I tender that.

HIS HONOUR: Exhibit CJ.

30 **EXHIBIT #CJ MR BRERETON'S JUNE 1997 REPORT**

HIS HONOUR: This is Mr Brereton's report June 1997.

35 MS MORTIMER: Now, the second entry in the Swift Parrot Recovery Plan references is a report of Mr Peter Brown who you know has been a witness in this case, Dr Shields?---I do.

40 And have you read that report in its entirety?---I have.

Sorry, you have?---I have.

45 And did you read that report in its entirety in order to prepare your evidence for this case?---No, I read it when I was reading the book on parrots for the National Photographic Index in 1992.

So Mr Brown's report was one of the sources that you used for that book?---Yes.

Now, so far as I can see, Dr Shields from the list on page 2416 in the Swift Parrot Recovery Plan, aside from those two articles and the one that starts with the principal author being either Mr or Ms Gartrell which talks about the elementary track of the swift parrot which perhaps we don't need to go into, the only other articles that are listed there that are particularly about the swift parrot are those by Mr Simon Kennedy and his co-authors; would you agree with that - and there is a book by Mr Hindwood or Ms Hindwood?---That are confined to the swift parrot?

5
10

Yes?---Yes.

And in preparation for writing your affidavit in this proceeding did you read any of those three articles by Mr Kennedy?---These are dated references from the management plan which was prepared some time ago, but I have read the Foraging Ecology in Boxed Ironbark Woodlands and the Foraging Ecology and Habitat Use in Western Slopes of New South Wales, I didn't feel any particular need to re-read them at this point, but I have read them and know the information that's in them.

15
20

Now, again, in terms of just focussing on your information sources, Dr Shields, did you - were you provided with a report of a survey conducted by Mr David James in Wielangta? Have you seen that document?---I have seen that document.

25

Did you see that document before you finalised your affidavit?---Yes, I saw it.

Can Dr Shields be shown, please, book 4, page 1510? Is that the document you have seen? It forms part of Mr Miller's affidavit in this proceeding, Dr Shields?---Yes, it's one I've seen.

30

And do you say that you saw that before you finalised your own affidavit; is that right?---To my recollection that is correct.

Why isn't that in your list of information sources, Dr Shields?---Well, I've been very careful about saying that I saw it and I may have read it, but it wasn't necessary as a primary part of my affidavit, to my recollection.

35

I see, Dr Shields, the only survey carried out in Wielangta about swift parrots wasn't necessary to your affidavit; is that your evidence?---No, it's - what's the word I'm looking for - sort of begging the question, obviously enough this is what this case is about, I didn't think it was necessary to bring it to the attention of the Court when indeed it's a very short report and everyone here knows that David James did a report and found lots of superb parrots in Wielangta.

40

45

Superb, you might mean swift parrots, Dr Shields?---Swift parrots, indeed.

And you didn't think that you might use this document in forming your opinion about the importance of Wielangta for swift parrots; is that right?---Well, no, if I could draw your attention to the first paragraph of that report:

5 *Over a period of two weeks, five locations were surveyed for swift parrot nesting habitat.*

Compared with Brown and Brereton, I'd say a very small sample, it's directed at one place, and aside from the general knowledge that there are swift parrots
10 in these coupes it wasn't necessary to provide the primary information that goes into it. It's a very simple report. There are lots of parrots in these two coupes.

And you could, for example, form an opinion about the efficacy of management prescriptions without having regard to the only specific survey of
15 Wielangta that has been done in the last seven or eight years; is that right?---I didn't say that I disregarded them or that I ignored them.

I think you said it wasn't necessary, Dr Shields?---To write my affidavit and make the point, no.

20 All right. Can Dr Shields be shown exhibit MKM20, please? Perhaps just before you look at that, Dr Shields, who showed you David James' report?---I think I first heard about it in March and it wasn't through Forestry Tasmania, no, it was provided to me once I took the job, but yes, I was aware of the report
25 for some time. I truly don't recall who showed it to me, but it wasn't as part of this job.

You say you were first aware of it in March. March, which year?---2005. It was not part of this job and I don't know who showed it to me. I knew that
30 David James had done some work on them and that a report existed and it was as a result of this that we're here.

Well, might you have found out about it because Mr Simon Kennedy, in his affidavit in this proceedings, talks about Dr Shields? Is that how you might
35 have come across it?---I don't know.

That might be the way you came across it?---I don't know. I don't think so.

Some how you, as far as you can recollect, came across it in March 2005, not
40 as part of this case. Is that your evidence?---No, I said March off the top of my head but I am trying to think of a date - it was some time before this case started that I - - -

HIS HONOUR: Do you mean before the hearings started?---Before the - - -

45 Or the application was lodged?---Before I was approached by Forestry Tasmania to be part of this case on or about 28 October 2005.

MS MORTIMER: Now, if you can have a look at exhibit MKM20 please and tell me whether you have ever seen that map before and just so there is no lack of clarity in the question, Dr Shields, I am asking whether you have seen that particular map before?---No.

5

Thank you. Now, aside - and can I take it, Dr Shields, and I will just hand this back to you so you can answer the question with the documents in front of you, what I have put in front of you are the four pages that you produced in answer to the order that I think you have described - no, I withdraw that. Those are the four pages you have produced in answer to my question about what you meant by the DPIWE subpoena information in paragraph 6; correct?---Yes.

10

And aside from the last - and it is true, isn't it, that the last two pages are described as the answers from DPIWE? They are the information that answers the questions on the first two pages?---Yes.

15

And aside from those two pages you were not supplied with any information from the Tasmanian Department of Primary Industries, Water and Energy; is that right?

20

HIS HONOUR: Environment.

MS MORTIMER: Environment, for this case?---I got lost with description of the acronym.

25

I will just use the acronym again. Aside from what you got on the last two pages of that bundle you were not supplied with any information from DPIWE about the swift parrot?---To my recollection, no, but I am suspicious of superlatives. I well could have been supplied with some and don't recall it.

30

Surely, Dr Shields, if you had been supplied with any other information from the State Department responsible for threatened species in relation to the swift parrot, you might, as you are sitting there, recall that?---I might.

35

But you don't apart from that information?---Not to say exclusively that I didn't receive any but by and large from DPIWE the relevant information was in these questions. I was supplied with and organised on my own to read a large number of documents and I certainly don't recall all of them.

40

I understand that, Dr Shields. Would you accept that the State Department within the State of Tasmania that is responsible for threatened species, including the swift parrot, would be a very relevant source of information for you about the swift parrot?---Certainly.

45

And you didn't, for the purpose of giving evidence in this proceeding, make any independent inquiries by yourself of DPIWE?---Not in the sense of calling people up and asking them questions relevant to this case but I did source a

large amount of information about DPIWE and its actions and the outcomes therefrom.

5 And we find the principal parts of that information in your references section in your affidavit, would we?---If there was specific cause to cite it, yes.

10 Well, Dr Shields, anything that you felt was an important source of information for you in relation to forming your opinion about the swift parrot, we would find if not in paragraph 6, then in your references section surely?---Yes.

15 Thank you. Now, I want to ask you some questions about your experience with the swift parrot. You have I think, as you have given evidence, read a number of publications that are specifically about the swift parrot; is that right?---Yes.

20 And the ones that you have read are certainly those that you consider important in the formation of your opinion we will find either in the body of your affidavit or in your references; is that right?---Well, certainly not all of them. I would have read several hundred publications that concerned the swift parrot.

25 What I am asking you, Dr Shields, is the ones that you consider important for the formation of your opinion, we will find that you have referred to in your affidavit?---Yes.

30 And you have - can you go please in your affidavit to page 2528 of the Court book, which is in your references? You will see there is an article that you cite there by Dr Munks, Munks, Richards, Meggs and Brereton. Did you read that as part of the information that you used to form your opinions in this case?---Yes.

35 I will just hand you a copy of that. That is the article?---Yes, it is.

I tender that, if your Honour pleases.

40 HIS HONOUR: Exhibit CK.

EXHIBIT #CK ARTICLE BY MUNKS, RICHARDS, MEGGS AND BRERETON

45

MS MORTIMER: Now, the only publication of yours, Dr Shields, in which you have specifically described the swift parrot is your publication that we see at 2529 of the Court book, the next page. Shields and Chrome, Parrots and Pigeons of Australia. Is that the only publication of which you are the author that specifically addresses the swift parrot?---Yes.

And that is a book that covers by way of description in terms of biology, habitat, reproduction, all those things, all the parrots and pigeons in Australia; is that right?---Yes.

5 How many species?---Fifty-four species of parrots and - - -

Sorry?---Fifty-four species of parrots and 22 species of pigeons.

10 Dr Shields, I will just tell you that that is - you don't need - that is not a microphone that you need to pay any particular attention to, and it is going to pick up what you say if you just speak normally.

15 HIS HONOUR: It is primarily there to record. Well, I think it does amplify a little, whereas mostly in Courtrooms that I have sat in, certainly in other parts of Australia, it has been purely a recording device.

20 MS MORTIMER: Now, Dr Shields, have you - you have not undertaken any habitat surveys, whether foraging or nesting, in relation to the swift parrot?---No, I haven't.

You have participated in some surveys; is that right?---I have participated and organised surveys in a variety of locations and different times and places.

25 Of the swift parrot?---Yes.

Where do we find that referred to in your curriculum vitae? Can you just direct me to that, please?---Well - - -

30 You will need to look at your curriculum vitae, Dr Shields, which starts on page 2534, and just point me to the entry where you talk about the undertaking of surveys in relation to the swift parrot?---I should point out that I undertake a wide variety of studies and endeavours and not all of them will be listed in my curriculum vitae, but on page 2534 at the beginning of 1979 and continuing through to the present I have worked as a wildlife research and management officer for the State Forests, and during that time I have had cause to organise formal and informal surveys specifically for the swift parrot on repeated occasions, the last one being in October of this year - of last year, when we organised volunteers through the forestry people on the south coast for instance to take part in the swift parrot survey.

40 This is the swift parrot surveys that are co-ordinated to try and get an estimate of swift parrot numbers on the mainland; is that correct?---No, this was one that's specific to the south coast that was done through the local bird club. That's an example.

45 All right. And you say that that was a survey that you organised, you personally organised?---This is one that I drew as an example. I organised it in

the sense of setting up the club and getting people organised to send the data sheets in.

5 What did that involve, Dr Shields?---That involved knowing the pattern of movements of swift parrots up and down the coast of New South Wales.

10 No, I am sorry, Dr Shields, I asked you what was involved in organising the people in the bird club to get their forms in?---Thank you for clarifying that. That involved contacting the people and telling them where the study sites might be and what they might need to do when they got there, how they should best optimise their chances for seeing swift parrots, to check up with them to make sure they know how to identify swift parrot, the usual thing that you do when you're organising a swift parrot survey.

15 And you have done that, you say, in October 2005 and before that?---We can move progressively backwards to 1979, but - - -

20 You have done it every year since 1979?---I've done it on repeated occasions, it's part of our normal operations. I have with me a data sheet that we use for our annual bird surveys as part of my job as a forest manager. It might give counsel some comfort that - - -

25 Well, it might, Dr Shields, but I am not asking about that at the moment. So you can just leave that to one side?---Yes, I thought you were interested in the specifics of organising the swift parrot survey, I'm sorry.

30 Well, I am going to ask you and in relation to how many other parrots did you organise similar surveys?---Regent parrot and the superb parrot, the fig parrot - double-eyed fig parrot, the superb parrot I probably spent the most time on specifically, but the regent parrot I've historically spent the most time organising surveys for.

35 And with each of these surveys you rely on the participation of enthusiastic volunteers from the bird clubs; is that right?---No, the one that I happen to mention as an example was one that I did with a bird club. The superb parrot and the regent parrot, I was the chairman of the steering committee for the recovery of the species and I organised the scientific survey directed by Rick Webster for the superb parrot and Karen Birdsall and Alan Burbridge for the regent parrot, who were highly professional contractors that were put on specifically to do the job and it's my job to organise a scientific and repeatable survey that could be used to verify the species' recovery or lack of it.

45 All right. And you have not organised or participated in any nesting habitat surveys in Tasmania in relation to the swift parrot; is that right?---No formal surveys, no. I have surveyed for nesting habitat of the swift parrot in Tasmania myself as part of visits here and the ornithology expedition to Maria Island in 1981 and on other visits to Tasmania, I've made an effort to do nest searches.

All right. And the survey that - no, I withdraw that. The sighting that you refer to at paragraph 25 in relation to - these are some observations in relation to foraging, they are observations that you have made yourself as part of these surveys that you have just been telling us about on the mainland, where you say I have observed it foraging on psyllid lerps. That is part of the survey work that you have just been telling us about, is it?---No, I was specifically following a group of swift parrots around trying to see what they were feeding on that had been reported by members of our bird club and I went out and spent a couple of afternoons through the week trying to determine what they were doing with regard to food.

All right. And in relation to what you have observed of the swift parrot in Wielangta we can take it that you have seen the one-nest tree that you saw on your visit in November; is that right?---With regard to the swift parrot in Wielangta coupes, yes, that's correct.

Now, you don't have any difficulty, do you, Dr Shields accepting that Mr Simon Kennedy has far more field experience in relation to the swift parrot than you do?---Can you tell me what you mean by far more?

Significantly more - whatever adjective you like to put in there?---I'd say more.

And you don't have any difficulty accepting that Mr Peter Brown has significantly more field experience of the swift parrot than you do?---Significantly more as in I do in Tasmania, his report is a monument of natural history work and is a very complete and readable report.

And in terms of therefore his knowledge and experience about in particular nesting habitat and nesting behaviour of the swift parrot, you would defer to what he says?---Not necessarily.

But you would accept that he has far more experience in that than you do?---I accept that he had far more experience in observing the species in the field in Tasmania.

Now, in relation to what you published in refereed or peer reviewed journals in relation to the regent parrot or the superb parrot, do you have any publications that meet that criteria?---No.

In fact all I could see in relation to on your list in terms of regent parrots was one reference to a conference paper about regent parrots - and I am putting to one side the entries that will obviously be in that book that you authored - but apart from that I can see an entry on page 2545 at the top, Regent Parrots and River Redgums which is under the heading Conference Proceedings. Is there anything else specific about regent parrots?---With regard to refereed scientific publications, no. I would point out that my role with regent parrots and superb parrots is as a manager not a researcher and that my function on those recovery teams was to organise and not carry out research.

And that is what you were doing was as a chair of a committee you were co-ordinating some work that was supposed to be undertaken in relation to both those species in pursuance of the recovery plans for those species?---That was
5 before the legislation requiring recovery plans exist.

Well, in relation to the recovery of those species omit the word plan?---One of the things that I did as you say was organise the work.

10 Now, I see from your curriculum vitae, Dr Shields, that you have been working in the New South Wales Forest Department since about 1990; would that be right?---No, I started with New South Wales Forestry in 1979 June.

15 And then you went away for some considerable amount of time and came back again?---No, I had a sabbatical from 1987 to 1990 when I went to the University of Washington and Seattle.

20 So you started with New South Wales Forests in 1979 and you had some time away back in the United States and then you came back to New South Wales Forests about 1990?---As I say it was a sabbatical, I never left, I was employed on half pay while I went overseas and I carried out some further academic work.

25 And your doctorate at the University of Washington was sponsored by the New South Wales State Forests; is that right?---As I say I went on sabbatical and received half pay during that time. As I found out when I got there that half pay was about equal to the fees of the University of Washington and so in the sense of sponsoring me they allowed me to pay those fees.

30 And you have had, I think as you disclose in curriculum vitae, some considerable research support from Harris Dayshara; is that right?---I worked on a grant that Professor Harry Recher got from Harris Dayshara. Professor Recher is as you know with the Wilderness Society as an adviser, he got the grant from Harris Dayshara.

35 And you are an active contributor in public relations on behalf of New South Wales State Forests?---No, I'm not, not recently, it's not been part of my charter or job for some time.

40 Well, you say in your curriculum vitae that on page 2542:

I assist our public relations branch with the preparations of news releases and usually give quotes to provide detail for these stories.

45 You say you have participated in media training and all of that is on behalf of New South Wales State Forests isn't it?---No.

Well, who is "our public relations branch" if it is not New South Wales State Forests public relations branch?---As I say that hasn't been part of my charter for some time now, I have done that training, at one time it was part of my job. I can do it if required.

5

So we should read, "I assist our public relations branch," as at some stage in the past I did assist, should we?---I still assist them when required to do so, and I have the capability. I take your point that I am a well trained in publicity and work for a forestry agency and commit that to the record.

10

And you are also engaged in policy and planning decisions at a relatively high level within State forests New South Wales, would that be fair?---Yes.

And do I understand State Forests New South Wales to be the New South Wales equivalent to Forestry Tasmania?---In many ways, yes.

15

And you bring to your work, Dr Shields, as a wildlife manager a particular perspective from working within a forest industry for that long; is that fair?---Well, yes, it must be fair.

20

And the perspective that you bring I suggest is one that is generally very supportive of the forest industry. Would you agree with that?---It's a very complex question. Could you be more specific? What do you mean by forest industry?

25

Well, what do you understand by the forest industry?---To me forest industry is involved with growing and selling wood to meet public demand.

All right. Well, on that understanding, I will ask the question again; and do you bring a perspective that is generally very supportive of the forest industry?---Specific reason for doing this. By forest industry, are you speaking in a global perspective, a national perspective or a regional perspective?

30

You might have different levels of support depending on which level I am talking about, Dr Shields?---That is certainly so.

35

Well, let us start with Australia's national forest industry. Do you have a perspective that is generally supportive of Australia's national forest industry?---Yes.

40

And do you have a perspective that is generally supportive of the New South Wales forest industry?---That very much so.

Do you have a perspective that is generally support of the Tasmanian forest industry?---No.

45

In fact you have engaged in some criticism of the Tasmanian forest industry, haven't you?---I have.

The approach taken in the Apple Isle causes considerable difficulty in the international arena as they are intensive and clearly not designed around long term sustainability for ecosystems.

5

That is your opinion of the Tasmanian forest industry, isn't it?---No. That is my opinion of what's part of some of the Tasmanian forest industry's operation and its perception overseas.

10 And that remains your opinion, does it?---As I stated it just now, yes.]

That would seem, Dr Shields, not to have been an opinion, particularly your criticism about their systems not being designed around long term sustainability, that doesn't appear to have been an opinion that has found its way into your report on this case. Why is that?---Because this case isn't about long term sustainability.

That is your view, is it? This case is not about long term sustainability. Is that your evidence?---I don't think so. I think this case is about the EPBC Act, isn't it?

20

Who first explained to you, Dr Shields, what this case was about?---I don't recall.

25 I take it somebody explained to you what this case was about before you agreed to become a participant in it?---Yes. I don't recall who did it first.

Well, who do you recall explaining to you at all what this case was about?---The people with whom I have mentioned already.

30

Mr McDonald?---Mr McDonald and John Hickey.

Well, let us take them one by one. Mr McDonald has explained to you what this case is about?---In general terms, yes.

35

Mr Hickey from Forestry Tasmania has explained to you what this case is about?---Yes.

Anybody else?---I have done considerable reading myself. I may have been mistaken but I tried to understand what the case is about myself from my own readings of material that is part of the Court and reading the transcripts.

40

All right. That is all activities that you undertook after you finalised your affidavit. Would that be right?---No.

45

You had recourse to some information concerning this case before finalising your affidavit, in your own research did you?---Can you repeat the specific question?

I will try it in a different way, Dr Shields. As I understand it you have given evidence that Mr McDonald explained to you what the case was about, Mr Hickey explained to you what the case was about and that you made your own independent inquiries about what the case was about. Is that a fair summary of the sources?---It is a fair but not exhaustive summary.

All right. Well, what other categories should we add to that?---Well, I talked about the case with our learned friends across the table and I had meetings with them. I talked about the case and had it explained to me as necessary by other employees of Forestry Tasmania. I have called my friends in the Green movement and had informal chats in the context of being abused by them. I have had it explained to me by many people.

Who else in Forestry Tasmania explained to you what the case was about apart from Mr Hickey?---In the sense of explaining what the case was about, Hans Drielsma, Gary King - - -

HIS HONOUR: Sorry, who was the second one?---Gary King.

MS MORTIMER: Who is Gary King? What position do you understand him to occupy in Forestry Tasmania?---Gary is a colleague from - that I know from the past from Forest New South Wales, and he is employed in a similar capacity by Forestry Tasmania.

Now, just focus for a moment, Dr Shields, on all the people that you have talked to within Forestry Tasmania about what this case is about. Have they given you a uniform view about what the case is about or different views?---Highly different views.

Highly different views, all right. Let us go through them. What did Mr Drielsma tell you the case was about?---Dr Drielsma asked me if I would consider a case involving Senator Brown and a challenge concerning endangered species.

All right. And that is what he asked you, but what did Dr Drielsma tell you the case was about beyond that? Is that all he said?---Well, by and large nobody did too much explaining to me what the case was about, other than putting it in terms of what species that they wanted me to be an expert on.

And so you certainly understood that it was a case about three species that were listed as priority species under the EPBC Act?---Indeed I did.

And you understood it to be about threats to, or alleged threats to their habitat in Wielangta?---Yes.

And you didn't consider that to have anything to do with long-term sustainability; is that your evidence, Dr Shields?---It certainly related to long-

term sustainability, but we're moving back and changing subjects between my opinion of Forestry Tas' operation as a whole with regard to long-term sustainability, and the case at Wielangta, which is where we started.

5 All right. Well, I will just show you the publication in which you made that statement, although no doubt you are familiar with it?---I meant to put this in myself.

Well, isn't that good, Dr Shields. I am going to do it for you?---Thank you.

10

Have a look at the bottom of the page. This is an extract from a more general publication called Conservation of Australia's Forest Fauna that is edited by Daniel Lunney; correct? Sorry, you have to say yes because the transcript won't record?---Yes, yes, indeed.

15

And what this article by you is a reflection about your experiences working within the forest system over the course of your working life; would that be fair?---The title says it all I think, and it's close to what you said. Wildlife management in New South Wales public forest, a personal history, 1974 to 2004, which isn't my entire working life.

20

And as you sit here today the perspective that you have through what we see you have written in that article remains your perspective?---My perspective is a very ephemeral thing, but as far as I understand your meaning, yes.

25

There is nothing in this article that you are going to say to his Honour, "Well, no, I don't think that any more"?---Not to my knowledge, no.

Your Honour, I tender that.

30

HIS HONOUR: Exhibit CL.

EXHIBIT #CL EXTRACT FROM CONSERVATION OF AUSTRALIA'S FOREST FAUNA

35

HIS HONOUR: Ms Mortimer, is the passage you read at 1047 in the bottom, right-hand corner?

40

MS MORTIMER: Yes, your Honour.

Now, one of the other activities that you have been involved with, Dr Shields, in your position with State Forest, New South Wales, is the preparation of environmental impact statements; is that right?---Yes, it is.

45

And I think you refer to those at page 2545 of the Court book. Well, there is a particular reference there, number 20. Do you see that, "Shields, York and

Benz, Flora and Fauna of Mount Royal State Forest". That was a report of which you were an author. That formed part of an environmental impact statement; is that correct?---Yes, it is. I was chasing that from our library the other day but yes, that is an EIS flora and fauna report.

5

And can you just tell his Honour please so that his Honour will understand the context of this, where the Mount Royal State Forest is and what the environmental impact statement was about?---Yes. Mount Royal is a very small area for an EIS to be conducted on and it was the first in a series of EISs that State Forest, NSW, conducted to comply with the Environmental Protection Act 1996 in that State.

10

HIS HONOUR: Whereabouts in New South Wales is Mount Royal?---Mount Royal is just to the south of Berrington Tops, south of Gloucester, west of Newcastle.

15

MS MORTIMER: And am I right that the area is now a national park?---Yes.

But at the stage that you prepared this report there was a proposal that it would be logged; is that right?---Yes.

20

I will just show you a copy of this. If your Honour will just pardon me a moment while I get another one or two. Now, that is a copy of your contribution to the environmental impact statement to which you refer in item 20 on page 2545; is that right?---As far as I understand your question, yes.

25

And the conclusions of the environmental impact statement in relation to Mount Royal were not accepted by the responsible New South Wales' minister, were they, Dr Shields?---Accepting an EIS or the findings of a study are not the prerogative of the minister under the legislation.

30

The findings were not accepted by the responsible New South Wales' minister. Do you agree or disagree with that statement?---I don't know. I don't understand what you mean by accepted. The EIS process in the State of New South Wales is not one of ministerial approval. It is one of consent by different authorities and the - - -

35

What do you recall that Mr Robert Webster, the Minister for Planning and Housing at the time, said about this environmental impact statement including the part that you authored?---I have no recollection of what the minister has said at the time. I do know what the probability values for the tests of significance are about impact were.

40

See if this rings a bell, Dr Shields:

45

That advice is, upon examination, the EIS contains a wide range of inadequacies, inconsistencies and the information in it is presented in a confusing manner. I am further advised that cumulatively the

5 *information of the EIS is so inadequate that it is impossible for the
director to assess the impact of the proposed logging operations in the
Mount Royal management area and to prepare a report recommending
whether or not they should be approved. As a consequence the
director's advice is that there is insufficient information for me to
consider my powers under the Timber Industry Interim Protection Act.*

10 Do you recall hearing or being informed about something to that effect, now
that I have jogged your memory?---No.

15 You never had any report back to you about what the minister thought about
this EIS? You didn't have any idea about that?---No, it was pretty much a
moot consideration from the beginning and if I recall from what you just read
out the minister was acting from advice of the director of an agency who was
just about to acquire that piece of land if he didn't accept it.

20 Well, I didn't ask you, Dr Shields, for a long explanation about why that view
might have been formed about the EIS. What I asked you was whether you
were aware that that view had been formed by the minister about the EIS
including about your work. You were aware of that, weren't you?---No. As I
said succinctly, I was not particularly aware of that because the results of that
EIS were never used.

25 Well, that is because the logging operations were not given permission on the
basis of that EIS; isn't that right?---No, I don't recall the processes but the
place was declared a national park not as a result of the inadequacies of the
EISs and the opinions that you just read out are just those - are ones of the head
of a department.

30 That is right. They are the opinions of the people responsible for the decision-
making process under the EIS system; correct?---That particular person was,
yes.

35 Have a look at the letter just to remind yourself, Dr Shields?---Right. I would
point out that this is the Timber Industry Interim Protection Act 1992 an Act
that lasted for about - - -

HIS HONOUR: Well, you haven't been asked a question?---I'm sorry.

40 MS MORTIMER: Now, the part that I read out, Dr Shields, is at the bottom
of the first page. Now, you were aware, weren't you, that those criticisms had
been made of the EIS. I am not asking you whether you agreed with them, you
are aware that those criticisms have been made?---Yes, I'm aware that my work
has been criticised.

45 And criticised, Dr Shields, to the extent that the responsible decision-makers
are saying it is well nigh impossible to rely on it to decide whether logging

operations should be approved or not, that is the purport of this letter isn't it?---Yes.

5 Did you think that when you were telling the Court in this case that you had
been, as part of your list of experiences, involved in the preparation of
environmental impact statements, it might have been a good idea to disclose to
the Court what the assessment by the decision-makers was of your
work?---Well, this is one of many flora and fauna reports I've done for EIS and
10 this wasn't the final decision, so no I would point out for instance the Eden EIS
that was the subject of considerable criticism and stood up to all of it.

Dr Shields, you didn't disclose either in your curriculum vitae or in your
evidence that any of the EIS processes of which you were an author or a
participant had been subject to any criticism did you, you didn't disclose that
15 fact?---Well, it's a matter of public record, I can find entire peer reviewed
publications that criticise my work.

How was his Honour to assess your assertion in terms of this forming part of
your experience without knowing that your work had been subject to these
20 kinds of criticisms, did you think about that?---Yes, I did.

So you turned your mind to whether you should disclose these criticisms and
you decided that you shouldn't?---Well, I decided that providing this sort of
25 detail was unnecessary as providing the sort of detail for the honours and
awards and praise that I've received from other ministers.

Your Honour, I tender that document.

30 HIS HONOUR: Which document?

MS MORTIMER: The two page letter and the report authored by Dr Shields,
they could go in as one exhibit if your Honour pleases.

35 HIS HONOUR: Exhibits - - -

MR D. GUNSON: Well, your Honour, I object to the report, your Honour and
I invite your Honour to have a look at the report.

40 HIS HONOUR: We might tender the letter separately. I might have to mark
the letter separately.

MR D. GUNSON: Well, I have some submissions to make about the letter
45 too, your Honour.

HIS HONOUR: Do you?

MR D. GUNSON: Yes.

HIS HONOUR: Well, I won't mark anything yet.

5 MR D. GUNSON: No, no. Could I make the first observation about the
report, your Honour, that somebody at some stage has obviously gone through
that report in some detail and heavily marked it. An example might be for
instance, if you were to just - a random example of it - page 69 and you will
see that most of the first paragraph at the top of that page has been heavily
obliterated. The bottom of the page under the heading Small Arboreal Animals
10 there are some further obliterations and somebody has put a commentary in
precise terms saying, "Bullshit."

HIS HONOUR: Sorry, where is that?

15 MS MORTIMER: Where is that?

MR D. GUNSON: On the bottom of page 69, it doesn't appear to be Mr Tree's
writing, I know that?---I know whose handwriting it is if you would care to do
an analysis.

20 MS MORTIMER: Well, your Honour, I am sure we can arrange to excise the
"bullshits" and provide your Honour with a clean copy.

MR D. GUNSON: Well, subject to it being properly prepared, that is a clear
25 copy with none of the notations for instance that appear on the next page in
page 70 and none of the obliterations, this is common throughout appearing, I
will probably at the end of the day have no objections to it, but in its current
form I object to it.

30 HIS HONOUR: Why don't I mark it MFI H.

MFI #H REPORT AUTHORED BY DR SHIELDS

35 MS MORTIMER: Yes, your Honour.

MR D. GUNSON: And as to the outcome of that will probably depend on the
letter, your Honour.

40 HIS HONOUR: Yes.

MR D. GUNSON: So can we just mark them together as to be marked for
identification only.

45 HIS HONOUR: Sorry?

MR D. GUNSON: Can the letter be marked for identification only.

HIS HONOUR: I see.

5 MR D. GUNSON: Because it seems to me logically if the report doesn't get in that the letter may not get in as well.

HIS HONOUR: I am not sure about that.

10 MS MORTIMER: No, not at all.

MR D. GUNSON: Let me deal with my objection to the letter.

15 HIS HONOUR: Well, let me be insistent in separating these. I know everyone wants to keep them together, but this is MFI H which is the report in the form given to me.

MS MORTIMER: Well, your Honour, I certainly don't want to keep them together if the objection to Dr Shields' report is because it has got highlighting and annotations on it.

20 HIS HONOUR: Yes, so now we are dealing with the letter.

25 MR D. GUNSON: If you were to look at the report, this is not the EIS, it is described at the beginning and I will take you to a part you can read because nobody has obliterated that or written on it. This is a fauna survey which one would suspect is a part of the EIS.

HIS HONOUR: Sorry, where do I get that?

30 MR D. GUNSON: Page 1, your Honour.

HIS HONOUR: Flora and fauna survey, the first page of the document.

35 MR D. GUNSON: It is described as a - - -

MS MORTIMER: Your Honour, in my submission this discussion ought to be had in the absence of the witness either in this room or in the next door room.

40 MR D. GUNSON: Yes, I - - -

HIS HONOUR: Dr Shields, do you mind just stepping outside? And there is a viewing room next door; you shouldn't go in there either?---Yes.

45

<THE WITNESS WITHDREW

[3.58pm]

HIS HONOUR: We will retrieve you before too long.

MR D. GUNSON: The document is entitled a Flora and Fauna Survey for the Mount Royal Management Area in the Newcastle Region and on any reading
5 of the document that is precisely what it is, and if you go to - - -

HIS HONOUR: But didn't the witness accept that it was an EIS?

MS MORTIMER: Yes.
10

MR D. GUNSON: No, I think he accepted it was part of it, it was a report, it is the EIS that has been rejected. If you go to the letter - - -

HIS HONOUR: But the witness also accepted that there was criticism of this
15 in the context of EIS.

MR D. GUNSON: Yes, but it is the EIS which is rejected. For instance, if you look at the bottom of page 1 of the letter from the Minister with respect to the EIS? Now, an EIS, as we all know, involves a number of processes not just
20 a report on the flora and fauna survey and it is that which is criticised with respect to the EIS for the Mount Royal management area.

HIS HONOUR: Your submissions may very well have an impact on the value I should give to this document ultimately, but why is it not admissible?
25

MR D. GUNSON: Because, with the greatest of respect, your Honour, it doesn't even refer to this report. It says with respect - - -

HIS HONOUR: But the witness has tied the two in his own evidence, viva voce evidence.
30

MR D. GUNSON: Yes, well, I am not sure whether I really understood the format of the question, but if your Honour finds that that is the basis for it then obviously it would go into evidence.
35

HIS HONOUR: Well, that is my current understanding. If it is wrong - if I turn out on reflection to be wrong then I will disregard it.

MR D. GUNSON: Thank you, your Honour.
40

MR BROADFOOT: Your Honour, might I inquire as to the purpose of the tender? Is it for the truth of the contents or is it simply for the fact that the Minister held and expressed that opinion at one stage?

HIS HONOUR: I think it is the way - - -
45

MR D. GUNSON: No, your Honour, my learned friend can't inquire, he doesn't have a role in this.

HIS HONOUR: Well, I am taking it as the latter.

MR BROADFOOT: As your Honour pleases.

5

HIS HONOUR: Do you want to say any more, Mr Gunson?

MR D. GUNSON: No, your Honour.

10

HIS HONOUR: Well, the letter will be exhibit CM - "M" for magpie.

EXHIBIT #CM TWO-PAGE LETTER AUTHORED BY DR SHIELDS

15

MS MORTIMER: Perhaps Dr Shields could be recalled, your Honour? They are not a threatened species, as I understand it, your Honour.

20

HIS HONOUR: One more loss and they might be. Coming back from Perth it is always a worry.

<CROSS-EXAMINATION BY MS MORTIMER

5

HIS HONOUR: Ms Mortimer?

MS MORTIMER: If your Honour pleases.

10

Now, I want to turn to another issue now, Dr Shields, in relation to information sources that you may have or may not have accessed. When you were forming your opinion that you express, as I understand it, in your affidavit about the adequacy of the management prescriptions in Wielangta for the swift parrot - well, firstly, I will ask. You do consider them adequate, don't you?---We consider them adequate to protect the species more than if they were absent.

15

Something is better than nothing; is that what you mean?---That statement is true.

20

Is that what you mean by you consider them adequate more than if they were absent?---I mean considerably more than that, but that's indubitably true and I tend to be clear about what I think is true.

25

And when you were forming your opinion about their adequacy did you engage in any comparisons about the prescriptions that exist in relation to the swift parrot in Wielangta with management prescriptions, for example, that you might be familiar with for other parrot species in New South Wales, for example? Did you do that kind of comparison?---Yes.

30

And just so that we can understand the answers to the subsequent questions I am going to ask you, Dr Shields, the source of your information for the management prescriptions that exist in Wielangta, as I understand it, was Mr Wapstra's affidavit and the recommendation through the threatened fauna adviser; is that right?---Yes, in conjunction with the information I gathered in the field on inspection.

35

What is the threatened fauna adviser?---The threatened fauna adviser is, as I understand it, a smart system or an information system that gives an answer to advise threatened fauna.

40

And have you used it?---In the sense of putting it into operation, no.

Have you had it demonstrated to you?---Yes.

45

By whom?---Primarily by myself in exploring that material that was given to me.

You were given a copy of it?---No. I was given a copy of the results of it.
What it comes up with, that you do.

5 Can you have a look please in book 5 of the Court book in Mr Wapstra's
affidavit at page 2073 to 2074, actually over to 2076. Is that what you
saw?---Yes.

10 And it is likely, isn't it Dr Shields, that you saw that because it forms part of
Mr Wapstra's affidavit; is that right?---It's likely.

15 And you can't, as you are sitting there now, tell his Honour that you have
otherwise had any access to or demonstration of the Threatened Fauna
Adviser?---Well, through its development I asked for advice on what should go
into it and in reviewing the Munks' papers that considered its application I got
some familiarity with it and several of my colleagues that I work with in New
South Wales are former practitioners here and they have explained it to me and
I used it as a bit of a basis for writing up the code of practice and the
prescriptions in New South Wales.

20 All right. So you say you had some familiarity with it, certainly outside the
circumstances of this case; is that right?---That's correct.

25 HIS HONOUR: Have you actually got onto a computer and interrogated
it?---No, I haven't. That's why I was careful not to have claimed to have done
that. I have not done that.

30 MS MORTIMER: And which management prescriptions that are operating in
New South Wales did you compare those prescriptions with?---With regard to
the swift parrot, all of them.

35 Well, no, not with regard to the swift parrot, Dr Shields, because we are talking
about, in this case, management prescriptions about nesting habitat and you
couldn't engage in a comparison in New South Wales in relation to any
management prescriptions for nesting habitat for the swift parrot could
you?---Well, yes, I could in the sense that nesting habitat is determined by the
distance from foraging habitat and foraging habitat is what we are trying to
protect in New South Wales. Foraging habitat is the same in Tasmania so there
are similarities.

40 There are no - there is no need in New South Wales, Dr Shields, for any
management prescriptions for nesting habitat for the swift parrot are
there?---That's clear.

45 And so the comparison - the relevant comparison - that you might have made
could be management prescriptions for another kind of parrot and its nesting
habitat in New South Wales; agreed?---I didn't - no, I didn't compare them
directly to a nesting habitat for other parrots, no. They link - the nexus - is the

foraging habitat which forms part of the definition of nesting habitat in Tasmania. That's where the link with swift parrots is.

5 Did you think it might be a useful exercise in assessing the management prescriptions for nesting habitat of the swift parrot to engage in some comparisons, for example, with management prescriptions in New South Wales in relation to nesting habitat for the superb parrot?---No, that wouldn't be relevant.

10 You, throughout your affidavit, Dr Shields, put forward the superb parrot as an appropriate comparator in some ways to the swift parrot, don't you?---Yes, but not particularly with regard to prescriptions for nesting habitat. They have many similarities in ecology. They are both migratory, both feed on nectar and lerps, both require hollows but both the silviculture systems and the forests and
15 their nesting habitat are different and the - I thought about it whether or not the superb parrot nesting prescriptions were suitable in comparison - I should recommend and do the same thing and I rejected that comparison because of the differences I have just mentioned.

20 You say on your oath that you did undertake that comparison, considered it and rejected it and that is why we don't see it in your affidavit. Is that what you say, Dr Shields?---As far as I understand the question and the topic we are talking about, yes.

25 HIS HONOUR: So what is difficult? You have said that a couple of times and when I come back to read the transcript, I may feel that there is some qualification. There wasn't any difficulty about the other questions. What is the difficulty about that question. Why do you feel you have to preface the answer in that way?---I am not exactly sure what counsel is asking me.

30 Well, it is ordinary English, ordinarily understood. If you have a difficulty with a question it is better to ask it be repeated rather than to answer like that because I am going to find that sort of answer singularly unhelpful when I come back to read the transcript?---I understand, your Honour, and I am
35 seriously trying to avoid that.

MS MORTIMER: Let me repeat it, Dr Shields. From your answers to a couple of my questions, I understand your evidence to be that in preparing your affidavit for these proceedings, you in fact considered the management
40 prescriptions that prevail in New South Wales for the superb parrot nesting habitat and whether you ought to use those as a comparison for the prescriptions for nesting habitat for the swift parrot. And you having undertaken that exercise decided that you would not include that in your affidavit; did you really do that?---Yes, I really did. I recalled and read the
45 prescriptions for the superb parrot and see if they were relevant to compare to the swift parrot and my decision was that they were not.

Well, let me show you an example of those prescriptions.

HIS HONOUR: Ms Mortimer, while we are now pausing to look at something new, can I ask how long you expect to be tomorrow in your cross-examination?

5

MS MORTIMER: Your Honour, subject to looking at all the documents that have been produced and if there is not too much that arises out of that, I would expect to be finished by about lunch time.

10 HIS HONOUR: So there is no chance that the evidence of the witness would not conclude tomorrow?

MS MORTIMER: No chance, your Honour. Well, unless my friend has got hours of re-examination.

15

MR D. GUNSON: Not yet.

MS MORTIMER: I haven't seen any form of that yet, your Honour.

20 HIS HONOUR: Is that a convenient time, or do you want to introduce this
- - -

MS MORTIMER: Can I perhaps direct the witness' attention to the relevant part of this document and perhaps he could think about that overnight.

25

HIS HONOUR: Certainly.

MS MORTIMER: Dr Shields, if you look at page 9, I understand this to be broadly the equivalent kind of document to a forest practices plan in Tasmania; would that be right?---Yes.

30

If you look at page 9 you will see the species specific conditions for fauna and the first entry is for the superb parrot and there are some prescriptions there?---Yes, I wrote those.

35

Now, well perhaps that is a convenient time, your Honour and I will come back to some questions about that document in the morning.

HIS HONOUR: You don't want to apply to tender it now?

40

MS MORTIMER: Well, perhaps I ought to, your Honour, yes and then I can give it an exhibit number reference in the morning.

HIS HONOUR: All right. CN, N for North. My enunciation of Ms and Ns was criticised when we were going through the Bs, so I am making it quite clear.

45

**EXHIBIT #CN DOCUMENT RE PRESCRIPTIONS FOR SUPERB
PARROT**

5 HIS HONOUR: We will now adjourn until 9.15 tomorrow morning.

MATTER ADJOURNED at 4.15 pm UNTIL FRIDAY, 19 MAY 2006

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NONE REQUESTED