Lessons Not Learned at University #9

When is a Permanent Sample Plot not a Permanent Sample Plot?

The Forester was at an international conference and had presented a paper on a forestry planning system. He had said how the underpinning models were based on many years of remeasurements of Permanent Sample Plots in South Australia.

At question time there were a number of relevant questions about the system and the models underpinning the system. *The North American* then rose to his feet and said, almost in an aggressive tone, “Well, we gave up measuring Permanent Sample Plots years ago. There are much better ways to get growth estimates from remeasured inventory plots. Why do you bother with Permanent Sample Plots in this day and age?”

The Forester was nonplussed, but managed to mutter an inadequate response. It was only later that he realised just what the problem was. They were talking about two quite different sorts of Permanent Sample Plots.

The Permanent Sample Plots that *The Forester* was referring to were a series of approximately 0.1 ha plots that had been remeasured over many years to consistent measurement standards. These plots covered a wide range of thinning treatments, a far wider range than was ever likely to be used in practice. They supported a system of inventory plots that provided an unbiased estimate of what was present in the forest. The subjectively-sited Permanent Sample Plots provided the data that enabled models to be developed that could be used to predict growth of the forest under a range of thinning and other silvicultural treatments. The point was to enable growth to be modelled not measured.

The North American was used to much less intensively managed forest. They had variable radius inventory plots and could remeasure them to get good unbiased growth estimates. They had sorted out the various issues like edge effects, ingrowth and mortality. Their system gave good estimates of current growth. Their system could not provide growth estimates in the unlikely event that they decided to change their silviculture. Many North American forest owners do have a small system of Permanent Sample Plots that enable the forest to be visualised under different silvicultural treatments, but growth is more commonly determined from remeasured inventory plots. Their silviculture is virtually unchanging. That said, they will have some tricky work to do rather quickly if they do decide to change their silviculture.

Simply put, a Permanent Sample Plot in South Australia is not the same as a Permanent Sample Plot in North America. Both are appropriate for the purpose for which they are used. They just happen to be used quite differently.

Lesson: Beware! Foresters mostly speak the same international language, but in some cases the same general term can mean different things to different people.

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