# MEASURING SPATIAL VARIATION IN FUEL MOISTURE:
FROM DAILY TO SEASONAL SCALES

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Figure 1. Fuel moisture on Mt Dandendong, VIC.

Figure 2. Fuel moisture and rainfall at Winmalee, NSW.
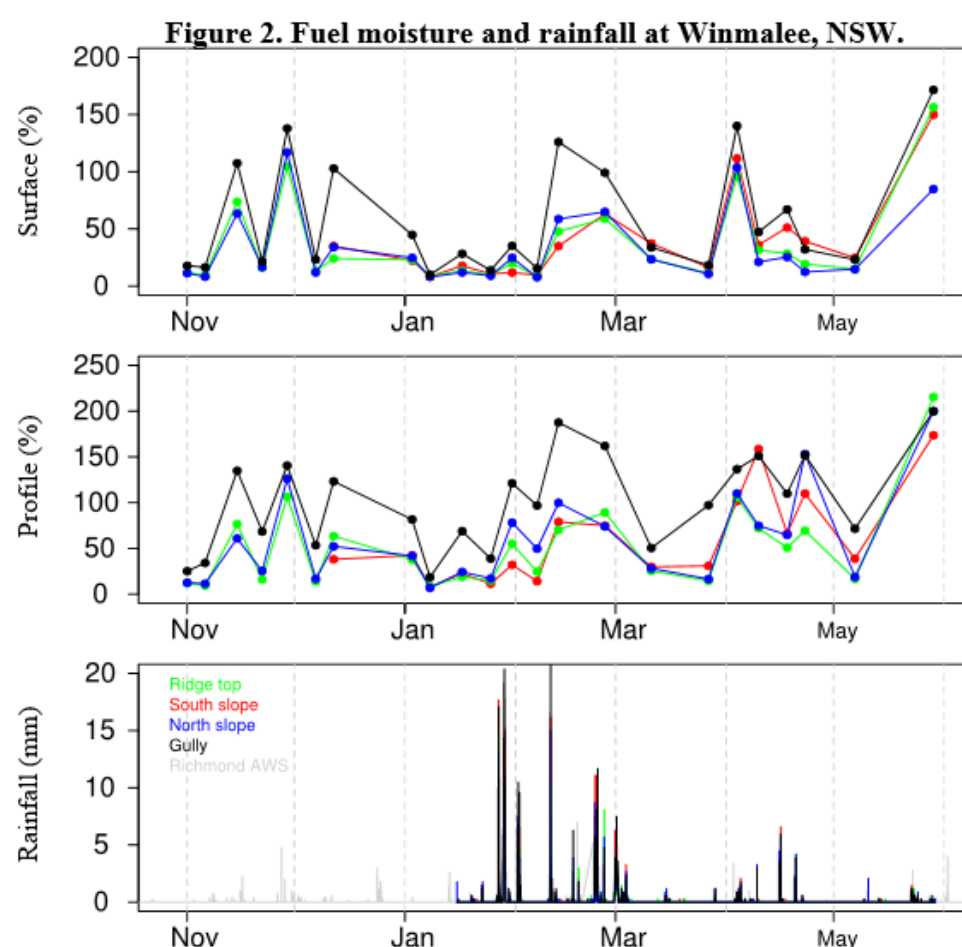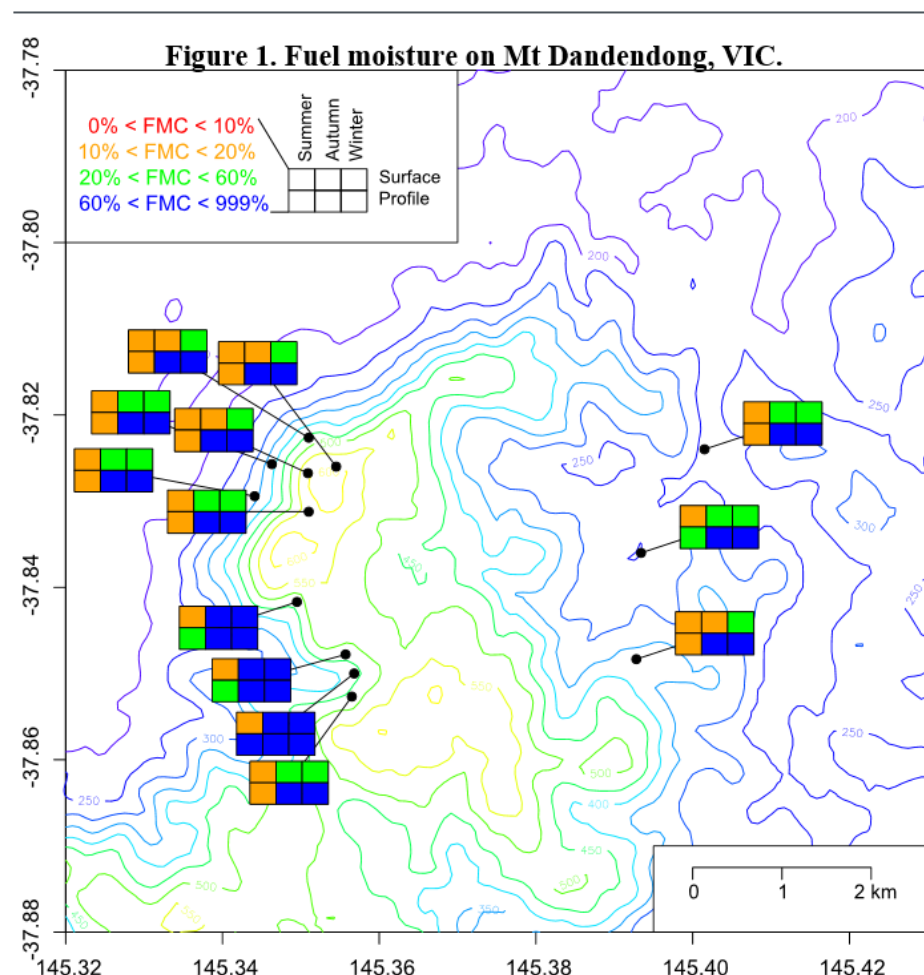
Measurements of dead fine fuel moisture were made over the past seven months at survey sites in Victoria (map at left) and an intensive monitoring site near Winmalee in the lower Blue Mountains area of NSW.

Variations related to topography, vegetation and microclimate were observed at time scales ranging from seasonal in survey data collected in Victoria (Fig 1) to weekly (Fig 2) and hourly on different aspects of a hill at Winmalee (Fig 3).

Future work on this project will use these observations to develop better models for predicting fuel moisture to assist fire agencies to plan for and manage fires.
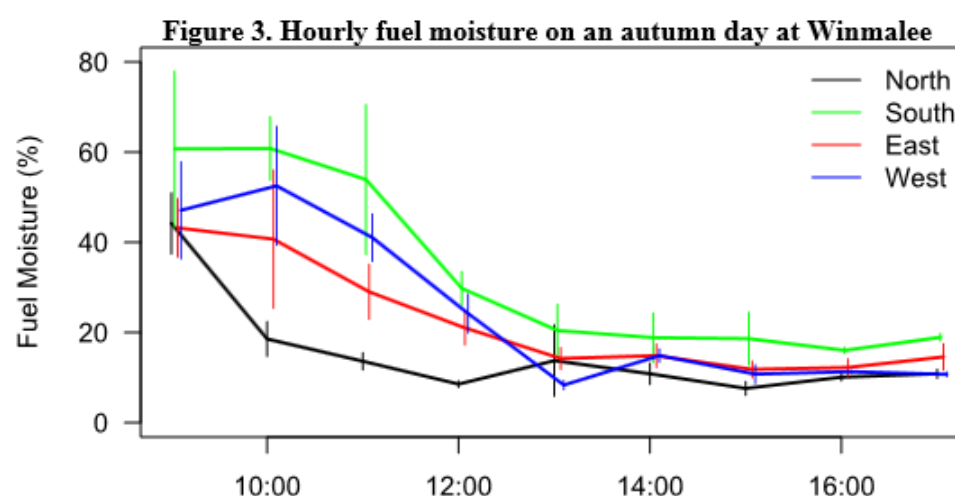
End User Statement (Jan Radic, DEPI):

Assessing fuel moisture over large areas of dissected forest is needed for assessment of fire danger, bushfire control, and burn planning. However, this is difficult using traditional approaches such as field based sampling. A landscape level overview of current and predicted fuel moisture would be a valuable planning input, allowing DEPI to:

•Refine fire behaviour models to provide more reliable fire spread predictions for decision making during fires or burns and to provide better advice to communities;

•Improve scheduling and prioritisation of fire management resource movements within and between regions; Improve identification of planned burn opportunities, and objectively account to government and communities that these are being taken.

•Provide better trends of bushfire risk for strategic planning and warnings under severe conditions;

Figure 3. Hourly fuel moisture on an autumn day at Winmalee