***One or two sentences providing a basic introduction to the field, comprehensible to a scientist in any discipline***

Leaves fix carbon using protein enzymes. The amounts of different proteins would be expected to adjust across landscapes to the particular circumstances of each leaf, via natural selection plus habitat separation among species plus plastic adjustment during the life of a leaf.

***Two to three sentences of more detailed background, comprehensible to scientists in related disciplines***

Yet up till now, proteins have been represented by total nitrogen in global vegetation models, because it has been impracticable to study the full set of individual proteins in leaves across many species and sites.

***One sentence clearly stating the general problem being addressed by this particular study.***

Here we quantify >1900 leaf proteins across 32 species of wild Eucalyptus, spanning gradients of temperature and rainfall at continent scale. Eucalypts are the most widespread clade of trees on the Australian continent and a mainstay of the global hardwood forestry industry.

***One sentence summarising the main result (with the words “here we show” or their equivalent).***

***Two or three sentences explaining what the main result reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.***

[something about average fractions contributed by major protein classes? – or isn’t that a major result?]

Two thirds (X%) of eucalypt leaf proteins are associated with photosynthesis.

Of these, Rubisco accounts for roughly 20 %, and is the most abundant individual protein complex in the leaf; proteins associated with photosynthetic light capture are also highly abundant, representing around X % of leaf protein.

*Relative protein abundance of a protein functional category indicates investment in a defined function relative to investment in all other functions.*

We found that the fraction of total protein in light capturing photosystems varied 2.5-fold, and declined by X% with an X% increase in incident radiation.

Fraction of protein in the Calvin-Benson cycle for photosynthetic carbon assimilation varied little (1.3-fold) and increased only X% in response to incident radiation. Amount of carbon-fixing protein per leaf area increased towards lower rainfall as expected, but this occurred via increasing leaf mass and leaf protein per area rather than by shifting proportions among different proteins.

***One or two sentences to put the results into a more general context.***

[Here would depend which major results we reported, and whether we represent them as changing previous understanding, versus as confirming but at unprecedentedly wide scale]

***Two or three sentences to provide a broader perspective, readily comprehensible to a scientist in any discipline***

We believe this study is harbinger of a new wave of landscape proteomics, that will be able to assess wide-area environmental patterns of proteins with specific functions, and to express vegetation properties in kg of those proteins per km2.