PrometheusWiki: online protocols gaining momentum

Just over 1 year ago we launched *PrometheusWiki*: PROtocols, METHods, Explanations and Updated Standards Wiki: a web-based, free-content resource built primarily from volunteer contributions (Sack *et al*. 2010). In the time since, *PrometheusWiki* has grown to include over 130 protocols and 55 topic summaries written by experts across 15 key research areas. In addition, the site has 400 registered users from research institutions and countries around the world.

PrometheusWiki is designed for researchers in the environmental plant sciences to easily access and share protocols, and to provide a forum for discussion and debate on different practices (Fig. 1). These fields include ecophysiology, plant and crop physiology, and soil biology. The project is a collaborative effort between the *PrometheusWiki* Editorial Board and **CSIRO** PUBLISHING, with the support of the ARC/NZ Research Network for Vegetation Function (2005–2010).

Our aim with *PrometheusWiki* is to create a resource that combines the open communication of the internet with the traditions of peer review. This is to ensure quality and prestige whilst delivering tools for anyone designing and conducting experiments in controlled environments or the field. After just 1 year, the site usage statistics indicate that *PrometheusWiki* has become a valued resource for students and experienced researchers alike; on average, the site receives 8000 page views per month and some protocols have been downloaded more than 2500 times, such as the protocol for the LI-COR 6400 gas exchange instrument.

The incentive for this project arose from a desire to provide an up-to-date, centralised resource, using new technologies to facilitate contributions from research groups across the globe. We expect that this effort to standardise protocols in the fields of ecological and environmental plant physiology will lead to increased accessibility and demystification of approaches in these

Fig. 1. *PrometheusWiki* homepage.

http://dx.doi.org/10.1071/FPv38n11_ED

methods-intensive disciplines. Speeding the dissemination and standardisation of methods will especially aid the research community in progressing towards integrative goals, such as elucidating genetic loci for physiological function, and predicting responses of plants, crops and ecosystems to climate change. To reach this aim we are exploring ways to encourage input from all of our users, not just the protocol authors and invited referees.

The project has already succeeded in drawing many colleagues to visit the site and to make use of protocols; however, we note that there has been limited engagement by the community with the *interactive* Wiki components of the site. While keen to use and discuss the protocols offline, our users hesitate to comment or edit each other's work online. The opportunity for user input in 'published' scientific work represents one of the most novel aspects of the project. We believe this element holds real promise because science moves most rapidly when researchers use similar methods and can easily repeat and build upon each other's discoveries. Thus, by encouraging open discussion and debate on *PrometheusWiki*, we can progress towards new standards in ecological and environmental plant physiology. We look forward to increasing usage of the Wiki features to realise the full potential of this resource: a place where researchers can adapt, comment on, discuss and debate methods in an open and collegial environment.

The Wiki world is changing quickly and, even over the past year, exciting technical improvements now enable users to easily include videos within protocols in addition to photographs and calculation tools (Fig. 2). A star rating

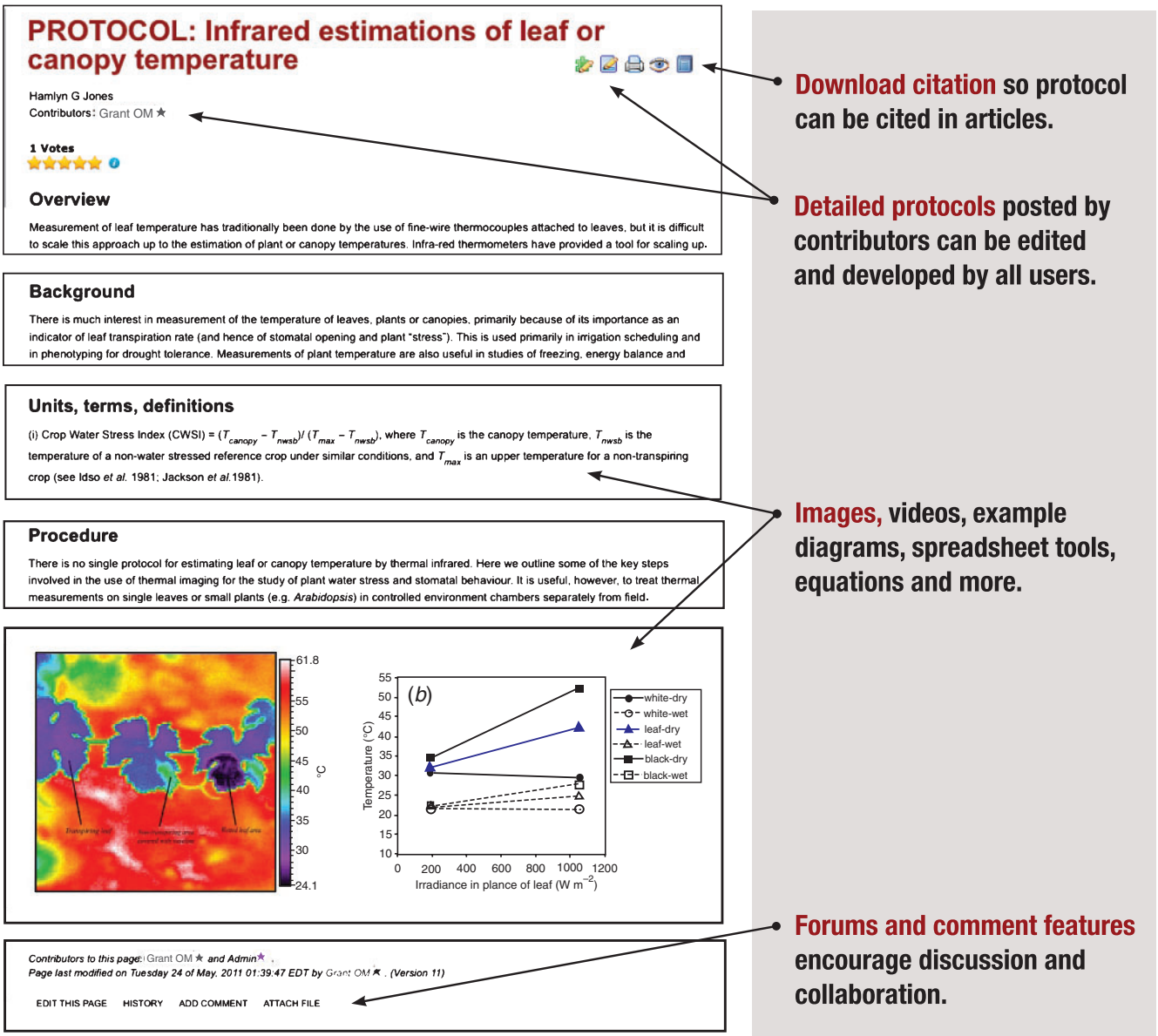

Fig. 2. *PrometheusWiki* enables registered users to edit, comment on, and rate existing protocols.

system also allows registered users to provide feedback on protocols, helping to develop community consensus on the quality and usefulness of certain techniques. An automated citation system allows pages to be easily referenced, and a growing number of journal publications are including a reference to a related *PrometheusWiki* protocol for readers to follow complex methodology in greater detail.

We welcome contributions from all members of the ecological and environmental plant physiology community – from newcomers to established practitioners around the globe. Your contributions and feedback will make this endeavour a success. Please visit *PrometheusWiki* and register to join the user community: http://publish.csiro.au/prometheuswiki.

PrometheusWiki is currently seeking Associate Editors and Editorial Interns

As *PrometheusWiki* grows and usage increases, the Editorial team must grow as well. The *PrometheusWiki* Editorial Board is currently seeking Associate Editors and Editorial Interns. Editors have responsibility for monitoring protocols on the Wiki, for commissioning new protocols and summary articles and for working with Editorial Assistants to invite reviewer comments. Editorial Interns, ideally advanced undergraduate or graduate students in related areas, are responsible for liaising with Editors to solicit contributions for the Wiki, inviting reviewer comments and enhancing community awareness and involvement with the Wiki. If you would like more information about joining *PrometheusWiki* as an Editor or Intern, please let us know (contact Adrienne Nicotra, Editor-in-Chief of *PrometheusWiki*: adrienne.nicotra@anu.edu.au).

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Reference

Sack L, Cornwell WK, Santiago LS, Barbour MM, Choat B, Evans JR, Munns R, Nicotra A (2010) A unique web resource for physiology, ecology and the environmental sciences: *PrometheusWiki. Functional Plant Biology* **37**, 687–693. doi:10.1071/FP10097