

# Ten Years of FloraBase

Ben Richardson and Alex Chapman

Western Australian Herbarium, Science Division,  
Department of Environment and Conservation, Australia

The Western Australian Herbarium manages the State's collection of plant, fungi and algae specimens, most of which are collected in Western Australia.

FloraBase ([florabase.dec.wa.gov.au](http://florabase.dec.wa.gov.au)) is a web application that provides general access to the taxonomic name, description and specimen databases and supplementary content such as maps and images managed by staff and volunteers at the Herbarium.

FloraBase turns 10 years old on 11 November 2008. Version 1 was published online in 1998 as a set of database-enabled Perl CGI scripts and supplementary HTML pages. It was revised substantially as a PHP application in version 2 of July 2003, and further enhanced in version 2.5 of September 2007.

## Steady Progress

We started with a small web site composed primarily of database query forms. The databases were in continual maintenance as part of curatorial procedures in the Herbarium.

As part of planning for the web site, we initiated projects to manage the distribution maps and photographs used in the site. The maps were built from specimen data, and the photographs were built from those donated by the public. The site was incrementally updated as these projects generated new content. Projects that generated taxon descriptions were published to FloraBase upon their completion also.

The site's content, both in database and in supplementary information, grew steadily from the start. We are sure that this steady progress has ensured FloraBase is a well-visited site.

As we upgraded the site, so did its compliance with developing standards.

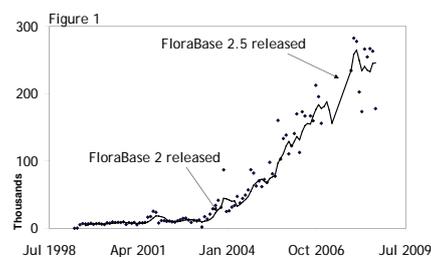
- We upgraded our specimen database so that it was congruent with HISPID, an

early and significant contributor to TDWG's ABCD Schema.

- Our taxon description projects made use of TDWG's DELTA System standard, and descriptions across all levels of the taxonomic hierarchy are still scored and presented to our users in this format.
- Our taxonomic name data was standardised through the use of published TDWG data standards such as Brummitt and Powell's Authors of Plant Names and projects such as the International Plant Names Index (IPNI). Most recently name usage has been standardised across the country with the Australian Plant Census.
- We adopted standard software engineering practices, such as the use of version control, unit testing and design patterns.

## User Login

Users were initially required to get a login to access the site, but this requirement was removed in version 2. Figure 1 shows that almost as soon as this occurred, the site's usage increased.



## Photograph Collages

Initially, we chose to create single photographs as a collage to simplify the management of image files in the web site. The collage contained up to 5 images with a title and the name of each photographer. This approach enabled us to provide photographic content for over half the vascular flora, but it also made data maintenance more difficult. Changes often required a complete overhaul to the collage, particularly when a photograph needed to be replaced and the replacement had a markedly different aspect ratio.

Our users also became interested in using our photographs in their own projects, but it was difficult for them to specify which photograph in the collage they were seeking to reuse.

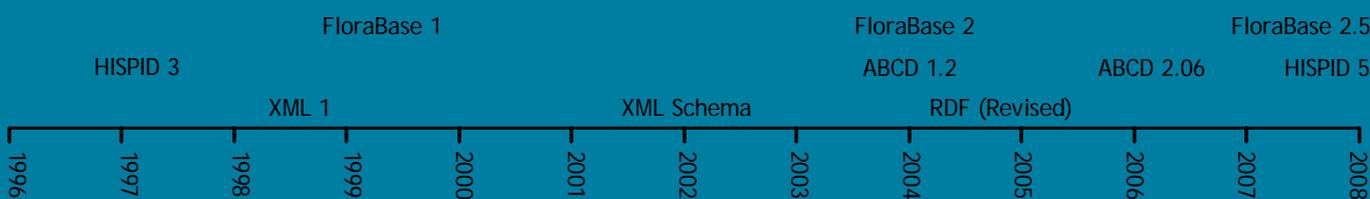
## Browse Mode

Users requested that we add the ability to browse the database content as well as query it. The feature proved useful to naïve users, who could "drill down" the tree of life to find a taxon name, and also to us because Google was better able to index the site.

## The Future

Work continues behind the scenes to determine the best way to implement TDWG standards and protocols for the benefit of our users. An area of interest to TDWG members is likely to be data downloads. Supplying data formatted according to the applicable TDWG standards make obvious sense to us, but our users have not yet requested data in these formats.

Ensuring that these standards find their way into applications used by the general community is a challenge for the biodiversity informatics community.



Department of  
Environment and Conservation