The Buffalo Botanical Gardens uses a UB Student designed and built website and plant database, that is stable and functional, but needs serious improvement.

The website is here: <http://71.186.160.170/website11a/>

All technical details as to its design and construction are here: <https://cse.buffalo.edu/~mikeb/>

The database currently has 4000 plant entries, searchable and viewable by anyone, but editable only with a login username and password. Of particular interest are the SEARCH screen, and the VIEW screen. Please see the ABOUT page for instructions on how to search and view.

This project might be of interest because it can be built piece-by-piece on top of a stable and working foundation. The database need not change, and current web pages can simply exist alongside new improved ones. The entire database and development environment can be placed on a laptop, and migrated to the Botanical Gardens’ server, tested in a benign state and then published to the public (a very risk-free approach).

Suggested improvements are as follows:

1. (low priority) A consumer-centric SEARCH screen: instead of the current method of writing search criteria (i..e. “all plants in the palm collection”), users will be able to click on categories right down to a specific plant or group through drop down menus and check marks. No typing required.

2. (low priority) A consumer-centric VIEW screen: we’ll look at other Botanical Gardens and harvest the best ideas for viewing all of the information on a specific plant, including a map in the Gardens where the plant can be found, appropriate Internet links, photos, etc. This can be the exclusive domain of the Plant Committee, if they wish.

3. Faster staff EDIT screen: currently, a plant’s information is laid out in 75 items, over a long page. It is cumbersome to edit. We’ll have students investigate user interface strategies to better our approach, including word-completion, drag-and-drop photos, default values, keyboard shortcuts, etc.

4. Staff current wishlist: longer description/comment fields, new field names, easier photo access.

5. Automated backup: currently, it’s a manual process that only a programmer can perform. There should be a button on a staff page to do it.

6. Stand-alone picture browser: to support drag-and-drop editing of plant data.