This year a major milestone was met as the main BSA web server served its millionth page. So far, as of June 30, 2001, 1,040,823 pages have been served (not counting a few months from winter 1999-2000). The choice of the name web “page” committee is becoming an anachronism, as the number of distinct files are over 2,000 on the main server and many more on additional servers. Three meeting sites with abstracts are currently maintained and each has ~1500 pages. The amount of data online is nearing 3 gigabytes. The biggest news is that Steve Wolf has agreed to become the new webmaster, succeeding Scott Russell. Details about the transition are currently being worked out. He will take over functional control on September 1, 2001.

Current web service record on the botany.org domain:

BSA website, FTP site, domain name service (DNS), e-mail service, and general web service, is located at the University of Oklahoma, under the direction of Scott Russell (from February 3, 2000). Last year, the BSA operation ran on one Pentium 120 as DNS and web server, one 486-100 MHz as secondary DNS, and a Pentium 166 as primary web server, all under Linux. The 486 has now been replaced by a second Pentium 166. A Pentium III is being prepared to serve as our secure web server. These all have UPS units that will provide at least 15 min of service in case of power interruption.

BSA Directory, administered at California State University-Stanislaus, is under the direction of Steve Wolf (from February 10, 2000)

Numbers of pages served for botany.org:

1997: 58,994 hits (March 4, 1997 through December 31, 1997)
1998: 184,266 hits (January 1, 1998 through December 31, 1998), up 212%
1999: 252,344 pro-rated estimate based on 189,251 hits (January 1, 1999 through September 30, 1999)*, up 40%
2000: 343,207 hits (February 1, 2000 through December 31, 2000)*, up 36%
2001: 261,145 hits (January 1, 2001 through June 30, 2001), up 44% so far this year

*Logs were unavailable due to change of servers for Oct 1999 through Jan 2000. Without this interruption, the number of page requests would have been ~100,000 more.

Other sub-domains and virtual servers of botany.org:


Domain name service (DNS) for botany.org:

In addition to the activity on the web servers, the domain name servers log over 150,000 requests per week for DNS information. The University of Oklahoma had a catastrophic network failure that closed the BSA site for 10 days near Christmas as the result of a fire in the service tunnels. This fire was caused by a short-circuit of lead-wrapped high voltage lines that vaporized some of the lead and melted some onto the fiber optic backbone of the campus. Over a thousand fiber
smaller than human hair had to be welded to restore service and this could only begin after the hazardous materials were contained. Hackers also tend to use weaknesses in DNS's BIND program to compromise systems. This happened last year but I frequently update the version to the most recent stable release for each of the different kernels I am running. There is also a free web service connected that checks the three servers once per hour and emails when service is interrupted.

**American Journal of Botany Online service:**

Here is a summary of the activity of the American Journal of Botany Online server run by HighWire Press on behalf of the Botanical Society of America. The free period of web service will end in February 2002. After that time, access will be password controlled for individual users and controlled by IP blocks for institutional members. This will clearly reduce the usage of the site. The experience of other HighWire Press journals, however, has been that usership rapidly increases to free levels once users are used to it being a paid site.

<table>
<thead>
<tr>
<th>Week</th>
<th>Requests</th>
<th>Requests-OK</th>
<th>Distinct Files</th>
<th>Unique Hosts</th>
<th>Traffic in KB</th>
<th>PDFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals 1999</td>
<td>657,469</td>
<td>315,491</td>
<td>193,376</td>
<td>76,670</td>
<td>16,104,467</td>
<td>28,515</td>
</tr>
<tr>
<td>Totals 2000</td>
<td>1,060,440</td>
<td>395,342</td>
<td>341,997</td>
<td>120,751</td>
<td>35,999,637</td>
<td>65,395</td>
</tr>
<tr>
<td>Totals 2001 so far</td>
<td>956,203</td>
<td>272,647</td>
<td>324,960</td>
<td>105,494</td>
<td>39,060,029</td>
<td>72,600</td>
</tr>
</tbody>
</table>

This represented an increase in usership of over 100% per year for each of the last two years. HighWire Press finds these statistics surprisingly high when we were compared among clients of similar size and mission.

**Initiatives:**

1. Numerous CGI scripts drive a number of automated or semi-automated functions including the creation of the electronic abstract submission site (~600 abstracts this year). The abstract volume was composed using Perl scripts, so there was never a ‘manuscript’ in the hardcopy sense. The text was submitted electronically to the presses. The total number of lines of code generated to operate this year’s site totaled over 3000 program lines and used over 260 driver files.

2. “Amazon Associate” links have been added for many of the book-related online pages of the Plant Science Bulletin, including ‘Books Received’ and ‘Book Reviews’. These return a fraction (from 5% to up to 30%) of the cost of the linked books to the BSA. The requirement from Amazon.Com is that a link be directly made to a specific book page. Although this looks like a great idea, botanists do not seem to buy books this way. So far, this program has yet to generate $15 and is not being continued.

3. The web versions of documents are increasingly becoming the preferred reference materials for the BSA. Hopefully, there will be much greater involvement in members generating their own pages.

4. Additional images are welcomed on the image server. We need people to prepare the images according to our requirements and upload them to our servers. If these arise, volunteers will be needed, as for the original project; the webmaster can give guidance on how to mount these.
5. “Ask a botanist” is a project that has languished in the midst of other higher priority projects. People’s questions are being answered, but not in such a coordinated manner. Resources will need to be made available to provide the artistic design of the interface and to develop the scripts required to drive it. This could be a project for a new part-time web developer in the BSA office.

Respectfully submitted,

Scott Russell, Webmaster and Chair,
Web Page Committee

Members of committee, 2000-2001:
   Chuck Daghlian (2001)
   Wayne Elisens (2001)
   Ross Koning (2002)
   Steven J. Wolf (2002)
   David W. Kramer (2001), Education Committee Chair, ex officio
   Marshall Sundberg, Editor, PSB ex officio
   Karl Niklas, Editor, AJB ex officio
   Jennifer Richards (2003), Secretary, ex officio
   Kimberly Hiser, Business Manager, ex officio