

Report from survey on BGCI education provision

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Aims and objectives for BGCI education survey

Roots

1. Discover if members in education departments are receiving it.
2. To find out which sections are read or are useful to readers
3. Discover what potential changes to the content would be welcomed
4. Get ideas for improvements
5. Identify contributors for future issues
6. Identify future themes of Roots

Cuttings

1. Find out if and how much it is read
2. Discover what medium people prefer to use to receive news about BGCI and the botanic garden community

Education website

1. Find out if people access the education website
2. Get feedback on ideas for improvements

Find out if people would be interested in suggested BGCI education projects

1. Distance learning programme
2. International education list serve

Distribution

Questionnaires distributed at

- BGCI's 6th International Congress on Education in Botanic Gardens
- International Diploma on Education in Botanic Gardens
- Roots mail out October 2006

Received back – 104 questionnaires

Note on analysis

Many questionnaires were only partially completed, or, because the respondent had not read the publication in question, some of the questions were unanswerable to some respondents. Therefore, results have to be compared to each other and the total number of results in a particular section, *not* as a percentage of the total number of questionnaires returned.

Summary of results

Roots

Most (86%) respondents were members of BGCI, so should be receiving *Roots* on a regular basis. However, the group answering the questionnaires (from the education congress or the diploma on education or from the *Roots* mail out) are the key audience for *Roots*, so ideally 100% of the respondents should be able to access *Roots*. 16% said they did not receive *Roots*, we may need to do some further work on this to find out why people are not necessarily receiving *Roots*, even if they are members of BGCI, and if they are not BGCI members, run a *Roots* subscription drive.*

As could be expected, due to the audience type, there is a high level of readership of *Roots* – with 87% of people either reading selected articles or reading *Roots* cover to cover. 96% of users usually read the editorial and everyone reads at least one article in *Roots*, with $\frac{3}{4}$ of users reading 3 – 7 articles on average per issue. The resources section is also popular with 82% of people always or sometimes reading it. Interestingly only $\frac{1}{3}$ of readers sometimes obtain hardcopies of recommended resources, whereas $\frac{2}{3}$ of readers (always/sometimes) access the recommended websites. This might suggest that we increase the website section of the resources. This may be connected with the ease of access – it is much simpler to type in an email address than order or pay for a hard copy resource.

Roots readers find the articles the most useful (50%), followed by the whole of the journal (22%), then the resources section (17%), then the editorial (6%). This does indicate overwhelmingly that readers find *Roots* supports their work. Importantly, 84% of respondents said they found the different language sections useful – indicating that we should continue with our trilingual editorial, summaries and resources section.

Respondents seem happy with the content of *Roots* – either asking for more of what we already provide, or the same amount. The most obvious request is for more practical ideas and activities, which we could implement and support with additional materials on the website. Nearly 60% were happy with the same amount of contributions from external authors. Interesting, thoughts were divided almost equally on whether we should have more or the same amount of theory and research and contributions from botanic gardens. We may have to investigate this further before altering the content of *Roots*.

The respondents seem keen to get involved with *Roots* – over half offered to contribute an article, and there were some comments from people who had already contributed to the publication. We have the details of all those who have offered. One suggestion was that we should make forthcoming themes more widely known (e.g. through the website, or given more prominence in *Roots*) so that potential authors can offer to share their experiences on the subject.

The top five themes selected (out of a possible 14) were *Education for Sustainability*, *Interpretation* (one comment was that interpretation was always useful – ‘its like chasing the horizon’), *Marketing education programmes*, *Working with school gardens* and *Using volunteers*. Other themes suggested include ‘principles of environmental education’, ‘games’, ‘conservation education’, ‘plant biotechnology’, ‘education strategies’, ‘research’ and ‘teacher training’.

* NB as the questionnaires were also distributed in *Roots*, all those that responded from the *Roots* questionnaire obviously receive *Roots*. The responses from individuals at the education congress and the diploma course provide a less biased response for this question. 80% are members of BGCI, 76% receive *Roots*.

Cuttings

Cuttings contains the education news. Fewer respondents seem to receive it than receive Roots (83% receive Roots, 77% receive Cuttings). As 73 % of respondents have accessed the education website it might be suggested that we put the education news on the website. However, when asked, over half (52%) of respondents say they prefer to have Cuttings as a printed format publication, 36% said they would like it as a e-newsletter, only 12% wanted to access the news and information provided by Cuttings from the website. Several respondents asked for a mixed format – i.e. printed and website or printed and e-newsletter. One respondent stated ‘Given the great range of language, cultures, institutions and needs, a range of form and content is no doubt necessary, and not a necessary evil – don’t standardise lower-tech out of the picture’.

This audience uses Cuttings in a different way to using Roots – with more looking through it briefly or reading selected articles, as could be expected with any news publication.

BGCI Education website

It is interesting to see the high proportion of people who access the education website 73%. This is not so different to the proportion that receives Roots (76% from the congress and diploma course respondents) - this suggests that greater investment should be made by the education department into the website, with at least as much time going into the education website provision as Roots. Respondents were keen to see further development of the website – the top five preferred developments are more case studies, on-line training courses for educators, more education resources or tool kits, links to education research and reviews of education resources. Interestingly, the least preferred response was the BGCI members only area with exclusive content – despite over 80% of respondents being BGCI member who would benefit from this.

Future developments

Somewhat surprisingly, as several of the respondents had English as a second language, nearly everyone was interested in having an international education list serve – 87%. The on-line learning course was also a popular idea, with 71% feeling that it would be valuable to participate in. Interestingly, 20% responded ‘don’t know’ – this may be a reflection of the need to find out more about the idea before giving an opinion

Conclusion

This survey gives us a clear picture of what this audience would like to see:

- specific developments for the education website
- the future themes of Roots
- a new international education list serve
- an on-line distance learning programme
- Cuttings in a printed format and/or by email – but not just as news on the website
- they want to be involved by writing for Roots
- maintaining the trilingual aspects of Roots
- maintaining the much of the current content of Roots
- further development of Roots could include more practical ideas and website/ online resources
- Roots and Cuttings are both accessed and read by the vast majority of respondents

Full Results

Are you or your organisation a member of BGCI?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Yes | 89 | 86 |
| No | 12 | 12 |
| Don't know | 3 | 3 |
| Total | 104 | |

Roots is the BGCI education review, it comes out twice a year. Do you receive it?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Yes | 86 | 83 |
| No | 17 | 16 |
| Don't know | 1 | 1 |
| Total | 104 | |

If yes, how much of Roots do you read?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| I don't open it | 0 | 0 |
| I look through it briefly | 12 | 13 |
| I read selected articles | 64 | 70 |
| I read it cover to cover | 15 | 17 |
| Total | 91 | |

Do you read the editorial?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Always | 29 | 32 |
| Sometimes | 59 | 64 |
| Never | 4 | 4 |
| Total | 92 | |

There are normally seven articles in each issue of Roots – how many of these do you read?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| 0 | 1 | 1 |
| 1-2 | 23 | 26 |
| 3-4 | 45 | 50 |
| 5-6 | 14 | 16 |
| 7 | 7 | 8 |
| Total | 90 | |

How often do you read the Resources section?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Always | 31 | 34 |
| Sometimes | 44 | 48 |
| Rarely | 11 | 12 |
| Never | 5 | 5 |
| Total | 91 | |

How often do you obtain a published copy of the recommended resources?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Always | 3 | 3 |
| Sometimes | 30 | 34 |
| Rarely | 32 | 36 |
| Never | 23 | 26 |
| Total | 88 | |

Do you access the recommended websites?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Always | 8 | 9 |
| Sometimes | 51 | 57 |
| Rarely | 20 | 22 |
| Never | 10 | 11 |
| Total | 89 | |

Roots is published in three languages – English, French and Spanish. If you speak one of these languages, do you find the language sections useful for your work?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Yes | 75 | 84 |
| No | 8 | 9 |
| Don't know | 6 | 7 |
| Total | 89 | |

Which section of Roots do you find most useful for your work?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------------|----------------------------|--------------------------|
| All sections are equally useful | 24 | 22 |
| Editorial | 6 | 6 |
| Resources | 18 | 17 |
| Articles | 53 | 50 |
| Don't know | 4 | 4 |
| Total | 105 | |

What improvements could you suggest for Roots?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|--|----------------------------|--------------------------|
| More practical ideas and activities | 46 | 67 |
| Same number of practical ideas | 23 | 33 |
| Less than Roots currently provides | 0 | 0 |
| Total | 69 | |
| More contributions form external authors | 18 | 31 |
| Same number of contributions from external authors | 38 | 66 |
| Less contributions from external authors | 2 | 3 |
| Total | 58 | |
| More educational theory and research | 29 | 49 |
| Same amount of educational theory and research | 34 | 52 |
| Less educational theory and research | 2 | 3 |
| Total | 65 | |
| More contributions from botanic garden community | 29 | 50 |
| Same amount of contributions from the botanic garden community | 29 | 50 |
| Less contributions from the botanic garden community | 0 | 0 |
| Total | 58 | |

Comments

- Invited editorials
- It's a great publication
- Provide more opportunities for individual members to publish on roots and should equally provide information on scholarship opportunities via roots
- Traditional aspects of plants through out the world
- Cover story of a plant
- Include a section exclusively for children
- Free copy of roots to education officers
- Publish themes of upcoming issues so people can offer contributions
- Plants collections for education
- Funding for programmes and education activities
- Improve the grammar of the Spanish translations
- Environmental education research
- Develop more self-critical commentary, rather than only positive announcements. Also, fresh thinking about the larger issues that affect us
- Better printing and layout (especially colours) – its often hard to read!
- Ideas for smaller gardens that don't have the resources of RBGE or Kew
- Climate change
- Send the information on paper and memory sticks / CDs
- More information about the history of botanic garden all over the world

Would you be willing to contribute an article to roots?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Yes | 53 | 54 |
| No | 46 | 46 |
| Total | 99 | |

Roots is themed, which of the following themes would you find useful for Roots to cover in the future? You can select more than one theme

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of no people who responded</i> | <i>Ranking</i> |
|---|----------------------------|--|----------------|
| Education for sustainability | 52 | 10.9 | 1 |
| Interpretation | 51 | 10 | 2 |
| Working with school gardens | 48 | 9.1 | 3 |
| Marketing education programmes | 47 | 9.1 | 4 |
| Using volunteers | 43 | 7.9 | 5 |
| Focus on plant science | 42 | 5.9 | 6 |
| Evaluation | 41 | 7.6 | 7 |
| Using technology in botanic garden education | 41 | 6.2 | 7 |
| Capacity building within the garden | 39 | 7.1 | 9 |
| Education in botanic gardens and the Millennium Development Goals | 36 | 5.9 | 10 |
| Darwin's bicentenary 2009 | 27 | 5.9 | 11 |
| Web-based learning | 26 | 5.3 | 12 |
| Using guides | 26 | 4.7 | 12 |
| Building networks | 23 | 3.8 | 14 |
| Total number people respond = 97 | | | |

Other ideas for themes

- Principles of environmental education
- Games to play with children and youth
- Conservation education
- Plant biotechnology i.e. propagation by ptc, production of active compounds
- Education strategies
- All themes are good – Darwin can be a supplementary issue
- Environmental education research in botanic gardens
- Teacher education
- Linnaeus tercentenary 2007
- Interpretation always useful – its like chasing the horizon
- Building networks – include international ones
- Running accredited courses
- Making money through education programmes

The education news now appears in Cuttings, BGCI's newsletter, published four times per year. Do you receive Cuttings?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Yes | 77 | 77 |
| No | 17 | 17 |
| Don't know | 6 | 6 |
| Total | 100 | |

If yes, how much of Cuttings do you read?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| I don't open it | 0 | 0 |
| I look through it briefly | 27 | 34 |
| I read selected articles | 43 | 54 |
| I read it cover to cover | 10 | 13 |
| Total | 80 | |

Suggestions for Cuttings

- I like it as it is
- Cuttings may be the best garden publication today in short format
- Attention should be given to wild plants
- ID of a plant every issue
- Can focus on region-wide conservation issues
- Distributed to all education officers
- More stories from individual gardens
- Biodiversity information
- More tropical botanic gardens and arboretum news and research articles
- There must be more practical oriented activities that botanical gardens could carry out, especially where limited budget is required.
- Not really, its is plant based useful notices of references and materials and what others are doing
- We should move away from printed format
- Cuttings should stay hard copy because it is read by all staff then available in the library
- Does not matter what format it is in, I visit the bgci website frequently and the email is used daily

In which format do you prefer to receive news from BGCI and the botanic garden community?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------------------|----------------------------|--------------------------|
| Printed format (e.g. Cuttings) | 66 | 52 |
| e-mail newsletter (electronic format) | 45 | 36 |
| By accessing the BGCI website | 15 | 12 |
| Total | 126 | |

Have you ever accessed the BGCI education website?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Yes | 75 | 73 |
| No | 23 | 22 |
| Don't know | 5 | 5 |
| Total | 103 | |

We are planning improvements for the education website. What would you like to see? You can tick more than one

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of people who responded</i> | <i>Ranking</i> |
|---|----------------------------|-------------------------------------|----------------|
| More case studies | 56 | 62 | 1 |
| More education resources/toolkits | 56 | 62 | 3 |
| On-line training courses for educators | 55 | 60 | 2 |
| Links to education research | 48 | 53 | 4 |
| Reviews of education resources | 38 | 42 | 5 |
| Links to other education providers | 33 | 36 | 7 |
| More education news | 32 | 35 | 6 |
| A regular email newsletter | 29 | 32 | 8 |
| Submit questions to 'ask an expert' | 26 | 29 | 9 |
| Web forum/education chat room | 17 | 19 | 9 |
| BGCI 'members only' area with 'exclusive content' | 14 | 15 | 11 |
| Total (no of individuals responded) | 91 | | |

Suggestions for the Education Website

- I'm going to take time to visit this website, did not know it existed
- Course/training directory - producing on line course at RBGE – need to link them
- Games to play with children, youth and adults
- The website is outstanding
- Create a forum for educators the world over to exchange ideas about education successes
- Gardens, ethics and religion

We are thinking about developing an education email group (list serve) for botanic garden educators around the globe. Would you be interested in joining?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Yes | 90 | 87 |
| No | 1 | 1 |
| Don't know | 12 | 12 |
| Total | 103 | |

Another idea we have is to develop an on-line distance learning course on botanic garden education. Is this something you would find valuable to participate in?

| <i>Choice of response</i> | <i>Number of responses</i> | <i>As % of responses</i> |
|---------------------------|----------------------------|--------------------------|
| Yes | 72 | 71 |
| No | 9 | 9 |
| Don't know | 20 | 20 |
| Total | 101 | |

Other comments on BGCI education provision overall

- Africa and Africa's participation in conservation is very limited. This is worrying, is there any way that BGCI can help to address and redress or improve the situation
- On line distance learning courses are sometimes very expensive for developing country participants especially surfing internet printing materials
- Support of botanic proposals specially in country that needs, to find financial support through BGCI or recommendations
- Time is a limiting factor for the distance learning programme
- Include articles on development from a geographical perspective
- Practical hands on science experiments, practical hands on scenario development, practical hands on handy craft work
- This conference has been very well organised, the social activities have been excellent as is the venue
- Given the great range of language, cultures, institutions and needs, a range of form and content is no doubt necessary, and not a necessary evil – don't standardise lower tech out of the picture
- Maybe the list serve can link up with APGAs education email
- As we have already conducted school / university education programmes as a theme of biodiversity conservation in Sam Popham Arboretum in Sri Lanka we would like to have exchange educational programme in Sri Lanka and BGCI members
- The distance learning course on botanic garden education could be beneficial to developing countries such as the Seychelles. More staff could participate in such programmes