Design Workshop 1 – February 19th 2018

Introduction & Background

Our initial design workshop was hosted on the morning of Monday 19th February. We were a total of 19 people consisting of a mix of nature conservation organisations, their volunteers, student volunteers and university project staff. External organisations involved were the National Trust, Amphibian and Reptile Conservation Trust and Bournemouth Borough Council The goal of this workshop was to introduce the website to some of the target audience, and get their feedback on how some of the key features of the website are proposed to work. Participants engaged in activities to explore specific questions as detailed below.

Talks

Dr Anita Diaz welcomed the participants and introduced the project. Following on, Dr Alexander Lovegrove explained the background and aims of the project – the ultimate goal being to enhance participation in conservation volunteering by providing the website as a central location for information and an effective search platform. Following on from the introduction, we introduced our design layout for the website that gives a general idea of how the webpages will be structured, work in practice, and what the results will look like.

Participant Activities & Results

We gave our participants five activities in order to find out their opinions on the website. These were 1) whether the interface for the system that allows people to input their preferences for types of volunteering activity should be slider or box-based, 2) what attributes were important when choosing a project and what influenced these decisions, 3) what types of people took part in volunteering and whether these could be placed into broad categories, 4) what different project types exist in conservation volunteering and citizen science, and finally 5) which sample logo designs were preferred and should be developed further. In addition, discussion was held throughout the tasks and workshop for additional feedback, useful information, and suggestions.

Sliders or Boxes

The first was regarding the interface for the match system, where we asked whether it should be slider or box based (see Fig 1). The response was overwhelmingly in favour of the box system, with only one participant favouring the sliders. We will need to carefully consider the boxes for each question and make sure that they are worded appropriately to

ensure a consistent understanding by different users and when project leaders enter project details.

A.

B.

Figure 1. Sliders and box input for the website match. A shows the slider approach and B the box designs. Our participants overwhelmingly favoured the box designs.

Other aspects of the website interface were also considered in discussions with the volunteers. For project reviews by website users, we asked for feedback on whether visible comments were preferred (in response to a perception that organisations might not like the reviews to be visible). A point or star based approach for different feedback aspects was also proposed, for example including "how much you enjoyed the project", "how much you feel you contributed", etc, which covers multiple questions but without the need for comments to be visible to users. The multi-rating approach could address fears that without visible comments, projects will look like they did not have favourable reviews. Alternatively it was suggested that we could have an option for an organisation to hide the comments from the public, although this somewhat complicates the design. A final visual suggestion was an innovative design of a flower growing from seed was suggested instead of using a star-rating (somewhat similar to the approach used in the *memrise* app for learning words).

What Influences a Choice of Project

Generally, all of our given attributes were rated highly and were considered important by our volunteers when choosing a project (Figures 2), although variation can be noticed between different characteristics. This suggests that we should retain all of these measurements. Because of the overall high rating for every category, we may need to carefully adjust our questions to ascertain whether an individual attribute is a priority or your first choice (with the aim at getting people to enter in a wider range of values). For some of the less clearly defined attributes, a number of important comments provide information that will help us address these issues appropriately. In particular, these latter attributes were *skill level, time commitment, how strenuous the activity was* and *location*.

For skill level, there is a clear need to define specific requirements rather than a vague self-reported rating of skill. One comment suggested that it is important for the conservation organisations to know if a volunteer has a specific skill set that could help during a project. Explicitly, we need a way for volunteers to specify a skill set in a specific area, such as a particular taxonomic group or GIS software. This could improve both the match system by becoming much more specific, and could help to show to volunteers where they can make the biggest contribution (if, for example, their skill set is in demand for certain projects). As one of the motivators added to our survey was contributing to scientific outcomes, this will be very useful.

For time commitment, it was suggested that we avoid the word 'commitment', as this can be off-putting to potential volunteers, and imply that they *have* to take part. Flexible systems are appreciated, with another suggestion being a calendar of events to examine and book on to if possible (this is probably technically challenging in the context of our website, and doesn't fit into the match system). This was generally an important consideration for people when choosing a project. It could make sense here to have broad categories, such as "one-off", "irregular" and "regular", and let the volunteers select further once they have seen the project details.

For activity levels, or how strenuous the project is, there are a number of considerations. One is that an important motivator for some volunteers was improving fitness, which could fall into this category. However, subtle differences could affect its usefulness here, as improving fitness as a motivation is not necessarily the same as being willing to conduct extreme, all-weather fieldwork. Categories for different activity levels will need to be clearly defined.

For location, a number of suggestions revolved around distance or map based approaches, which were discussed early on in the project but are outside the scope of the budget and technical capabilities. Many people chose distance or transport time based approaches, and there was some criticism of the county based approach (e.g. what happens if you live on the border of two counties).
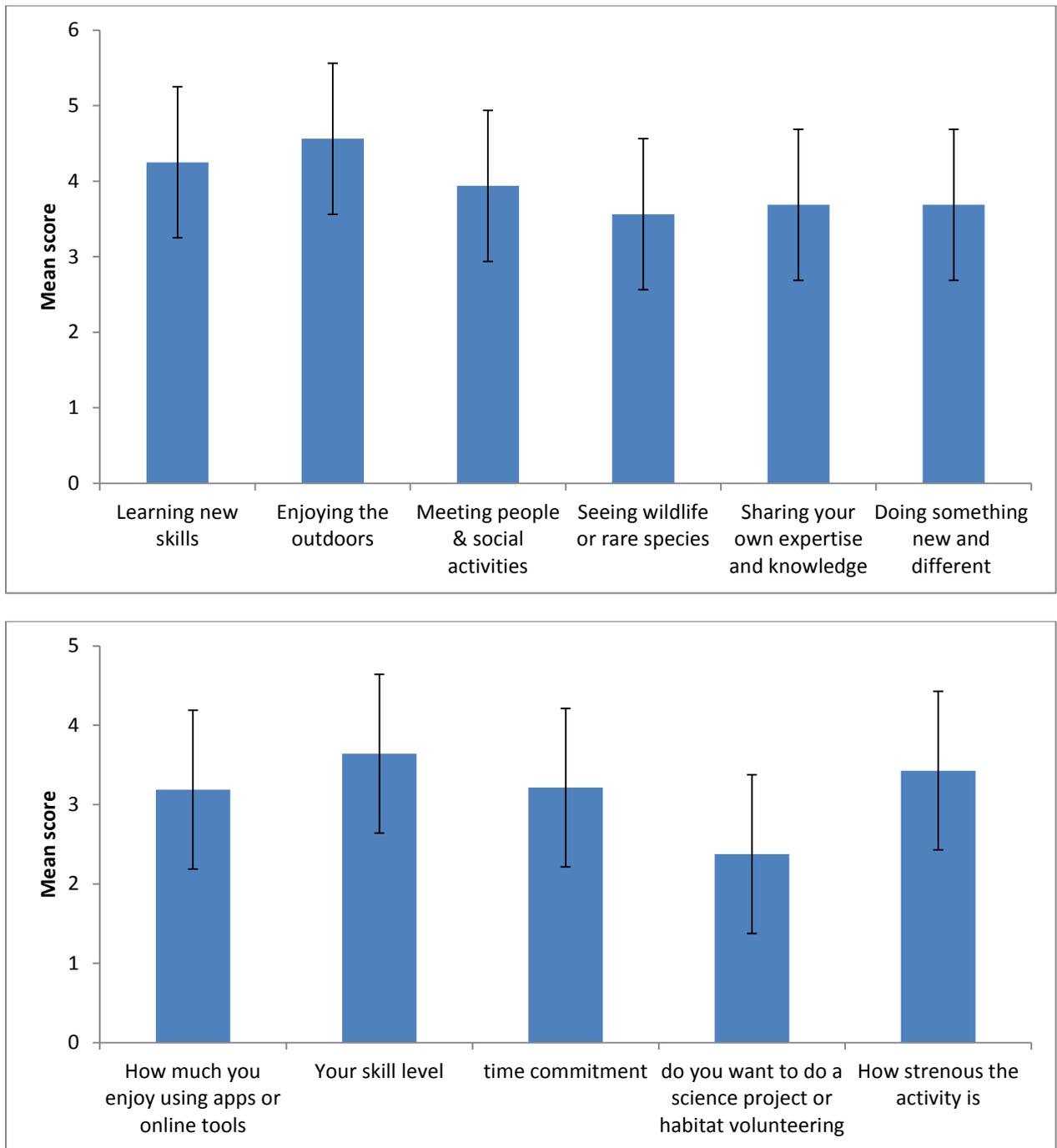
Figure 2. Different ratings of importance for match attributes as provided by our participants. None of the attributes were considered unimportant, suggesting that they will all be useful for the match process. Many additional comments were also provided that will help to improve the design of our questions for the system matching people with projects.

We also gave participants the opportunity to add in additional attributes that they thought were important when choosing a project. These included volunteering with the goal of reaching others about the importance of nature (connected to outreach), fitness, mental health benefits, contributing to science and seeing the end results of the work (together with receiving acknowledgement), the opportunity for networking and building contacts in a desired field, and whether project leaders are communicative and if there is a good amount of information available about the project. An additional factor that emerged was the cost of joining a project - for example, a long-running or seasonal project requiring accommodation (for example) this may affect someone's decision to take part. These attributes were all important suggestions, but for many it appears that they could potentially be addressed by existing attributes. For example, wanting to contribute to scientific research or data will likely mean that the user has a preference for citizen science surveys rather than habitat management, which is already measured. For fitness, the degree of activity or strenuousness could be effective, as long as the question is carefully worded. Some of the other additions, such as mental health benefits, networking, project leaders and information could be addressed by information on individual project pages. The one major exception is the opportunity for outreach, which is connected to the types of project (see below). This may require an extra question if it is considered important enough.

Types of People

Table 1 Types of volunteers sorted by participants into broader categories of types of people.

	GAIN EXPERTISE	SHARE EXPERTISE	FAMILIES	SOCIAL	OTHER
student building a CV	16	1			
sharing knowledge		15			
tech enthusiasts	4	11		2	
outdoor types	3	2	2	9	1
seeking new experiences	10		1	4	1
seeking social connections				16	
family day out			16	1	
school curriculum	15		2		
scout	11	1	1	4	
widlife enthusiast	5	10	1	1	1

We pre-selected four large categories for types of people to be sorted into, which were people looking to gain expertise ("Gain Expertise"), those looking to share existing expertise or knowledge ("Share Expertise"), family groups ("Families") and those looking for social activities ("Social"). Generally the smaller types of people sorted well into these four groups, although many were placed in multiple categories by our participants. Table 1 shows the sorting of these groups in a matrix structure, which can be used to adjust values in the Bayesian model. One issue participants considered important was that some types of

volunteer could be place in multiple categories, although this can be accounted for with our model weightings.

Table 2 Additional suggestions on types of people. "Fitness" motivations are emphasised in grey.

	GAIN EXPERTISE	SHARE EXPERTISE	FAMILIES	SOCIAL	OTHER
increasing fitness / green gym					6
cyclists					1
ramblers					1
young offenders groups / rehabilitation	1			1	
retirees	1	1		2	2
mps / councillors in "appreciate nature" groups					1
research	1				
unemployed people	1			1	1
gap year students					1
activities for ill or disabled people				1	
Duke of Edinburgh awards	1				
activities for children			1		
people with learning difficulties					1
animal lovers					1
plant lovers					1
conservation sector workers	1				
species specific enthusiasts					1
volunteering to make a difference					1

Several additional categories were provided, but principally in the form of the smaller categories. Foremost among these were people taking part for *fitness* or a *"green gym"* approach rather than looking to share knowledge or take part in social activities. Another large category was unemployed people or disadvantaged groups, which could potentially fit into the "Gain Expertise" category, but with some differences in the underlying motivations. A list of the additional categories is shown in Table 2.

The green gym approach could potentially be included in the social definition if this is broadened to include 'personal improvement', seeing the category as 'self improvement through social or physical activity'. Many of the other suggestions appear to possibly fit into gaining or sharing expertise (for example raising awareness of nature conservation could be considered 'sharing expertise', and species specialists will also likely fit into that category).

Types of Project

Table 3 Groups of Projects. Individual project types were sorted into broader categories that are proposed for project feedback. This table shows the four prior types of project.

	PRACTICAL VOLUNTEERING	CITIZEN SCIENCE FIELDWORK - SELF LED	CITIZEN SCIENCE FIELDWORK - GROUP OR ORGANISATION LED	CITIZEN SCIENCE - DESKTOP BASED	OTHER
habitat management	15	1			
beach cleaning	13		3		
community based projects	7	1	9		1
bioblitz	4		9	3	
garden bird survey	1	15	1		
scientific experiments	2	6	10	1	
bat surveying		6	13		
specialist ID surveys		8	7	2	
I-spot or online identification		2		14	
Zooniverse-type studies				16	

As with the types of people, we pre-selected four major categories of project. These were practical volunteering, citizen science independent fieldwork ("self-led"), citizen science group fieldwork, and citizen science desktop based studies. You may note that the numbers exceed the number of participants – this is because some participants placed specific project types in multiple categories. Most project types matched well into these groups (Table 3). There were relatively few additional categories proposed, but one very important one, outreach, which should be considered for implementation (see Table 4 for the smaller project types that could be included in this category). This could involve, within its scope, office based activities for conservation organisations, outreach or volunteer events, fundraising, visitor surveys or management and surveys of local people. These comprised the majority of "other suggestions". Participants came up with many different specific project types that fitted into the four existing categories, suggesting that these are good definitions (Table 4).

Table 4. Groups of project with additional categories proposed by the workshop participants. "outreach" activities, which comprised nearly all of the "other" category, are emphasised with grey text.

	PRACTICAL VOLUNTEE RING	CITIZEN SCIENCE FIELDWORK - SELF LED	CITIZEN SCIENCE FIELDWORK - GROUP OR ORGANISAT ION LED	CITIZEN SCIENCE - DESKTOP BASED	OTHER
Office-based activities for conservation organisations					1
outreach / volunteer learning			1		4
fundraising or crowd funding					2
visitor surveys					2
visitor management					1
surveys of locals (e.g. to promote or design projects with the communities they affect)					1
activities for children / open days					1
tech-led work, lidar surveys			1		
landscape feature building	1				
litter picking	1				
lichen surveys		1			
breeding bird survey		1			
birdtrack		1			
local weather stations					1
national ladybird scheme		1			
national wasp scheme		1			
living record / other data entry of field records				1	
archiving or digitising old records				1	
fence building, equipment maintenance	2				
drystone walling, hedge laying	2				
archaeology: survey work	1				
archaeology: fieldwalking	1				
path maintenance	1				
board walk maintenance	1				
butterfly transects / moth recording		1			

Logo Survey

Overall the tiled logo design (an example of which is shown in Fig 3) was most favoured by the workshop participants, but logos involving people were also highlighted. Comments on logos with people suggested that these patterns are more inclusive and illustrate the mix between nature and people that volunteering involves. Tiled designs were thought to show the breadth of possible projects for volunteering. There was a suggestion that the tiles could be used to link to different projects and additionally that designs on these tiles could be simplified to be more distinctive.
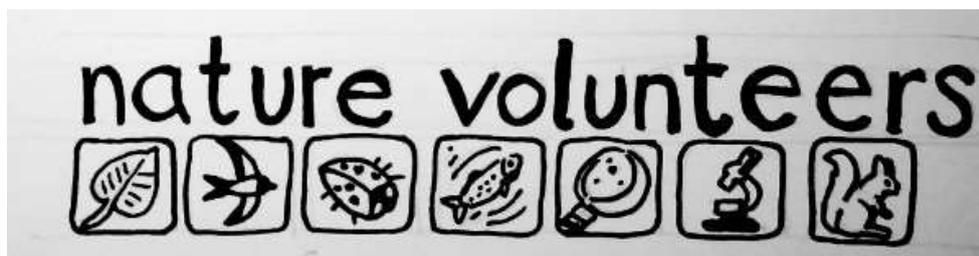
Figure 3. An example of the favoured logo type.

We will follow up this survey with a more detailed involvement with our student volunteers to generate a final logo design and a suitable tag-line for the website, and an online survey for people to select the final design.

Additional Comments from Volunteers

A number of suggestions were made about similar or complementary websites that could provide useful information, including:

- o Myvolunteerpage.com
- o Myvolunteering – National Trust web system
- o CJS / Environment Jobs hosts volunteer opportunities

The website "Find my Shift" – an online rota planner for (https://www.findmyshift.co.uk) was suggested as a way to address time commitment questions. This is already in use by the New Forest NPA in their archaeological citizen science work.

The SUBU volunteering matching system was also mentioned as a potentially similar (but much more simple) system, which may help when considering the interface of the website. This features time commitments for volunteering, i.e. long-term, or irregular, etc.

A useful suggestion of the Two Trees Forestry Commission volunteers, which are running many different projects, was also made, as was contacting "species champions" to raise awareness of volunteering projects.

Future suggestions

Although it has previously been suggested by Lawrence Shaw, gamification was suggested again as a potential future expansion of the website. Ideas included activity achievements, volunteer points, and badges, which could all enhance user engagement on the site, encourage them to sign up to projects, and encourage them to add feedback when completing them.

There is limited scope to alter the requirements for location but we can consider the suggestions of maps or distance based approaches as a "future opportunity" if the need arises, and have the support of volunteer workshop here as evidence that it would be useful.

Outcomes & Next Steps

Adjustments to Model and Categories

From the workshop it is clear that we will need to add outreach as an additional category of (broad) project type. In terms of categories of people, we should consider those looking for fitness rather than social or learning-based goals, but this could potentially be included in the existing categories of people, and additionally could be addressed by the model input for activity level / or how strenuous the project is. Additionally, some of the model inputs may need restructuring, particularly skill level, time commitment, & activity level / how strenuous the activity was, at least in terms of wording.

Options

- Add outreach category to project type, and consider whether asking about whether volunteers would like to participate in outreach on the match system.
- Either add 'seeking fitness category' to person type or broaded 'social' motivation to include self-improvement through fitness or health benefits
- Skill level – either explicit definitions or replace model selection with tick-box or drop-down categories for subject area (for example, skills in plant ID, bird ID, GIS ability, etc)
- Time availability – avoid the word commitment(!), suggest simple categories for model such as one-off, irregular, regular and allow project pages to show more information, or completely separate from model and put all information on project page.
- Activity level. Need to be able to show if project is easily accessible but also a rough indication of how much physical activity is required. Especially important as many of the volunteers suggested this was a key motivation for taking part in the activites.

Following the workshop, Alex will produce an updated version of the inputs based on these findings, from the 26/02/2018, and present this to the other project members for review.

Logos, Website Appearance and Future Workshops

During the next few weeks we will further develop the logo, together with website tag alongside our students, in some project meetings held on campus. This will be restricted to students who attended the workshop. Following these sessions, the logo will be sent out for review.

An additional design session will be held, with student and web-designer input, in April, with an opportunity to overview current design work and select a final appearance of the website.

Preparation also continues for the 21st May workshop, where we will launch for conservation organisations.

Expanding Our Contacts

Alex will be meeting the NPA volunteer co-ordinators (led by Richard Austin) in the next week or so, and the team will also meet Brian Heppenstall at Hengistbury Head. Futhermore, we will be expanding our contacts later in advance of the May Workshop and bringing more conservation organisations on board. We are aiming to work with key local organisations for the trial period of getting the website working in advance of a wider, National roll-out in October.

We welcome contacts from any conservation organisation interested in becoming a partner in our project.

For further information please contact Dr Alex Lovegrove at alovegrove@bournemouth.ac.uk or Dr Anita Diaz at adiaz@bournemouth.ac.uk