

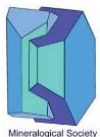


# The Volcanic & Magmatic Studies Group Equality, Diversity and Inclusion Report 2020



*Reflecting on equality, diversity and inclusion issues related to the VMMSG community and planning for future events*

**Compiled by Samantha Engwell, Sally Gibson & Janine Kavanagh  
(June 2020)**





## Foreword

The *Volcanic and Magmatic Studies Group* (VMSG) takes equality, diversity and inclusion (EDI) seriously and we recognise that the under-representation and/or unconscious marginalisation of any group impacts on our ability to fulfill our mission to serve the volcanology, petrology and geochemistry community.

Over the last 18 months, the VMSG Committee has been actively working to broaden our membership and make sure that this is fully represented at all our conferences, workshops and fieldtrips. Key to this is promoting an inclusive and welcoming environment. In 2018-2019 we collaborated with colleagues at our 'umbrella' organisations, the *Mineralogical Society of Great Britain and Ireland* and the *Geological Society of London*, to produce the [VMSG Equality and Diversity statement](#) and the [VMSG Code of Conduct for Meetings and Events](#). These were published in 2020 and now feature prominently in all of our conference and field trip information.

The following report summarises the findings from both the 2016-2020 VMSG annual meetings statistics and the VMSG 2020 Members Survey, which was held online in January-March 2020. The Members Survey was anonymous and included questions relating to gender, sexual orientation, place of residence and career stage. Due to limitations related to our historic data, the analysis presented here of past events is focused only on gender identity. Nevertheless, we are aware of the biases that exist within our scientific community -- such as ethnicity, sexual orientation, religion, physical ability and socioeconomic background -- and recognise that any future analysis needs to include these important factors, and also to look at trends in EDI over a longer time period.

In order to effect change we finish this report with some recommendations for future VMSG meetings, including appointing an EDI Officer on local organising committees. We have also recently appointed a dedicated Public Engagement and Outreach Officer on the VMSG Committee, who will maintain and strengthen our widening participation agenda by building on the momentum of recent VMSG public outreach events, and working with the VMSG community to develop new initiatives that are relevant for EDI. We welcome everyone's participation and involvement in these future activities – please contact us if you have ideas or suggestions.

Sam Engwell (VMSG Equality, Diversity and Inclusion Officer),

Sally Gibson (Chair of VMSG)

and Janine Kavanagh (Honourable Secretary of the VMSG)

## Acknowledgements

We thank previous VMSG meeting organisers, including Paul Cole, Leon Thompson, Sami Mikhail, Vern Manville, Jackie Kendrick, Emma Tomlinson and Jenni Barclay for their helpful feedback and comments on this report and for making data from past meetings available.

## Cover Image

VMSG fieldtrip to Mull in 2017. Image courtesy of Kate Dobson & Marcus Duffy.



## A. Equality, Diversity and Inclusion in the VMSG community

This section describes results from the VMSG 2020 Annual Members Survey related to EDI and provides important insights in to the make-up of our community and their views. A total of 110 responses to the survey were received, which we suggest represents approximately 10% of active VMSG members (for context, there are approximately 1000 current subscribers to the VMSG email list).

### A1. Gender identity

The survey asked members “How would you describe your gender?”. Figure 1 shows that approximately 60% of the 105 members who responded to this question identified themselves as male (including transgender men) and 38% female (including transgender women). The remaining 2% preferred not to say.

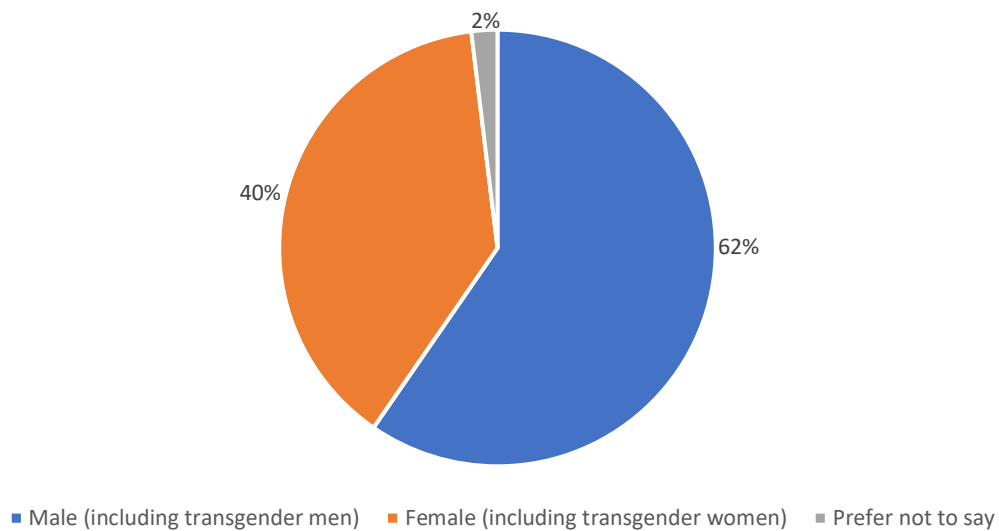


Figure 1: “How would you describe your gender?” (105 responses)

### A2. Sexual orientation

Of the 100 responses to the question “Which sexual orientation category best represents you?”, over 85% of respondents identify as heterosexual, 3% as bisexual, 2% as asexual, 2% as a gay man and 1% as a gay woman/lesbian (Figure 2). Approximately 8% of the respondents preferred not to say.

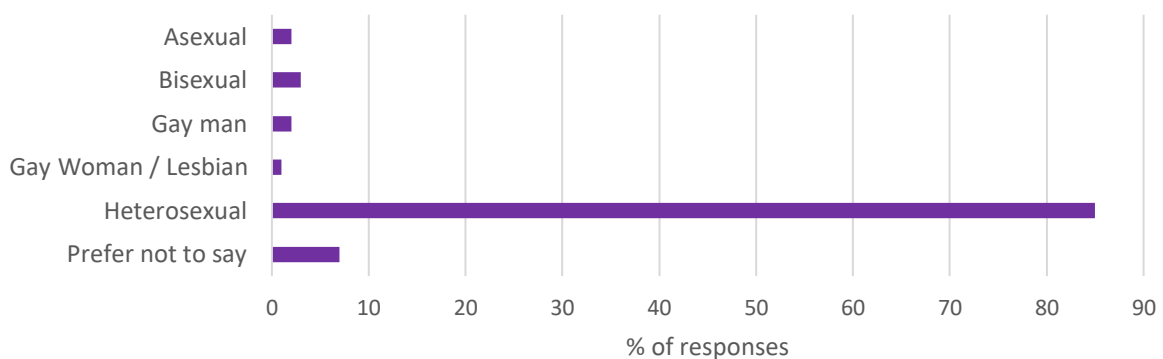
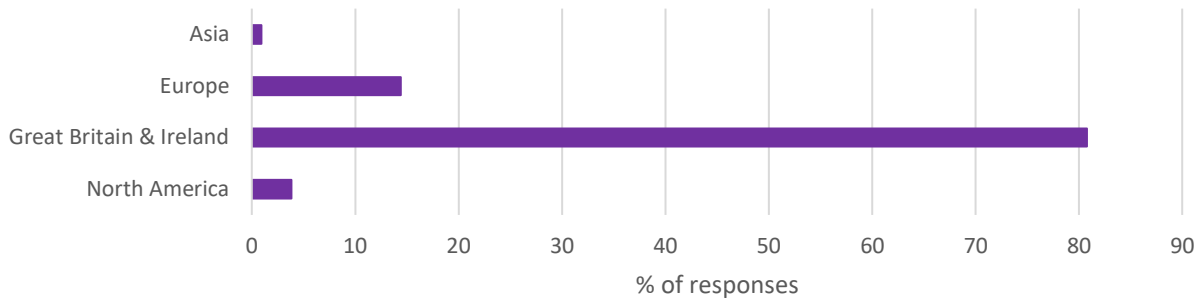


Figure 2: Percentages: “Which sexual orientation category best represents you?” (100 responses)



### A3. Place of residence

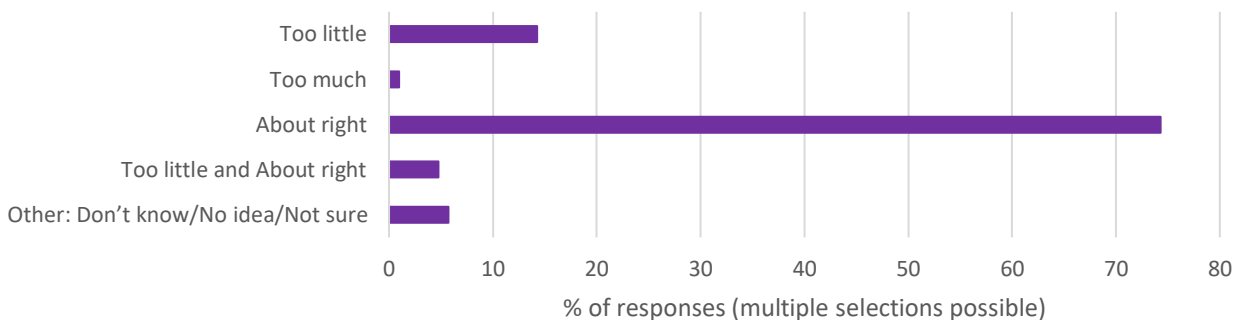
Members were asked “Please select your place of residence?”. From the 105 respondents to this question, 81% answered they were based in Great Britain & Ireland (Figure 3). Approximately 14 % resided in Europe, 4% in North America and 1% in Asia.



**Figure 3:** Percentages: “Please select your place of residence?” (105 responses)

### A4. VMSG efforts in equality and diversity

Regarding VMSG’s efforts in equality and diversity, respondents were asked “How much do you think VMSG is doing in terms of promoting equality and diversity?”. Possible answers included “Too much”, “Too little”, “About right”, or “other” where a free-text comment could be made. It was possible to select multiple answers to this question. Figure 4 shows that out of the 95 responders, 74% thought this was “About right”, 14% thought “Too little” was being done and 5% selected both “Too little” and “About right”, with some of these responders adding a comment that gender efforts were good but more should be done with regard to sexuality and ethnicity. 6% of responders selected “Other” and typed “Don’t know”, “No idea” or “Not sure”.

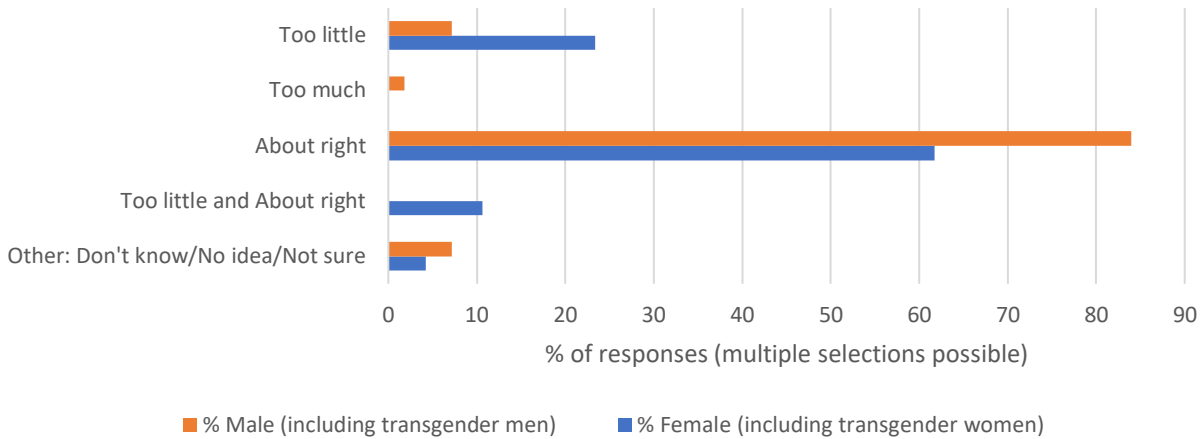


**Figure 4:** Percentages: “How much do you think VMSG is doing in terms of promoting equality & diversity in the community?” (95 responses)

It was possible to also evaluate the VMSG’s efforts in promoting equality and diversity with respect to other demographic characteristics such as gender, sexuality and education (career stage). There were 93 responses where both gender identity and a response to the question of VMSG’s promotion of diversity were given (Figure 5). From these responses, proportionally more men (including transgender men) responded “About right” (84% compared to 62% of women, including transgender women). A higher proportion of women (including transgender women)



responded “Too little” (23% compared to 7% of men). Only women selected both “Too little” and “About right”, and only men selected “Too much” (Figure 5).



**Figure 5: Percentages: ‘Gender identity’ and “How much do you think VMSG is doing in terms of promoting equality & diversity in the community?” (93 responses)**

There were 86 responses where both sexual identity and a response to the question of VMSG’s promotion of diversity were given (Figure 6). From these responses, 100% of gay men and 100% of gay women / lesbians thought the promotion was “About right”. The response from those who identify as asexual was equally spread between “About right”, “Too little”, and both “About right” and “Too little”. A larger proportion of the responses from bisexuals were in the “About right” category, although “Too little”, and both “About right” and “Too little” were also chosen. Most heterosexuals thought the promotion of diversity and equality was “About right” (74%), followed by “Too little” (14%), “Other” (7%), both “Too little” and “About right” (4%), and “Too much” (1%). Only heterosexuals responded with “Don't know/No idea/Not sure” (Figure 6).

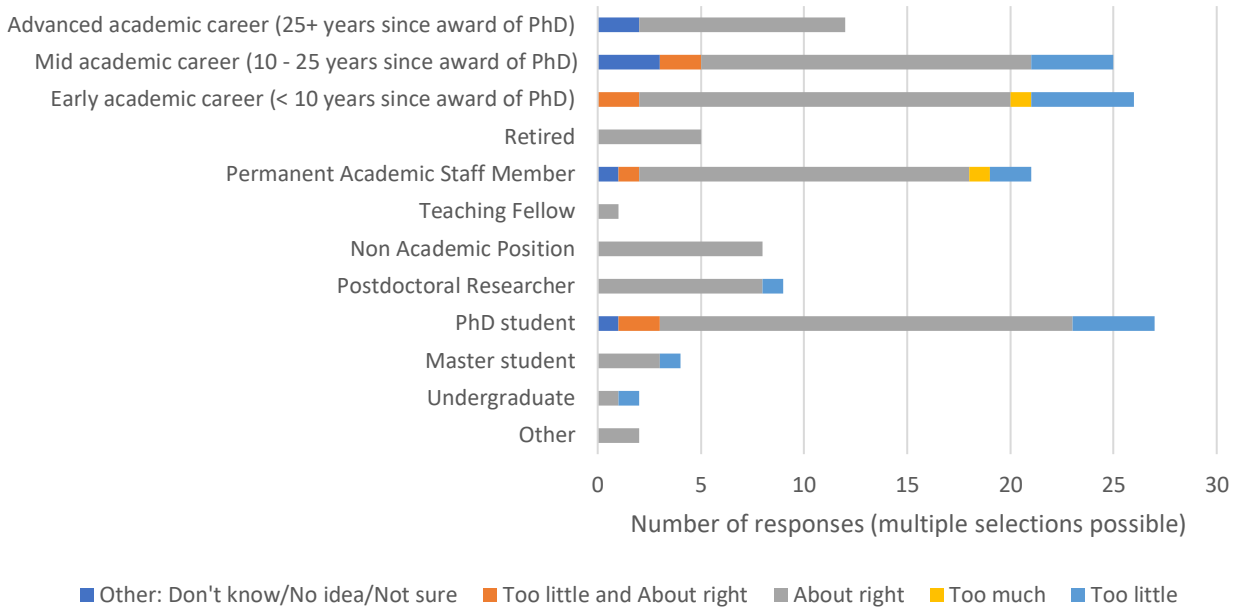


**Figure 6: Percentages: ‘Sexual identity’ and “How much do you think VMSG is doing in terms of promoting equality & diversity in the community?” (86 responses)**

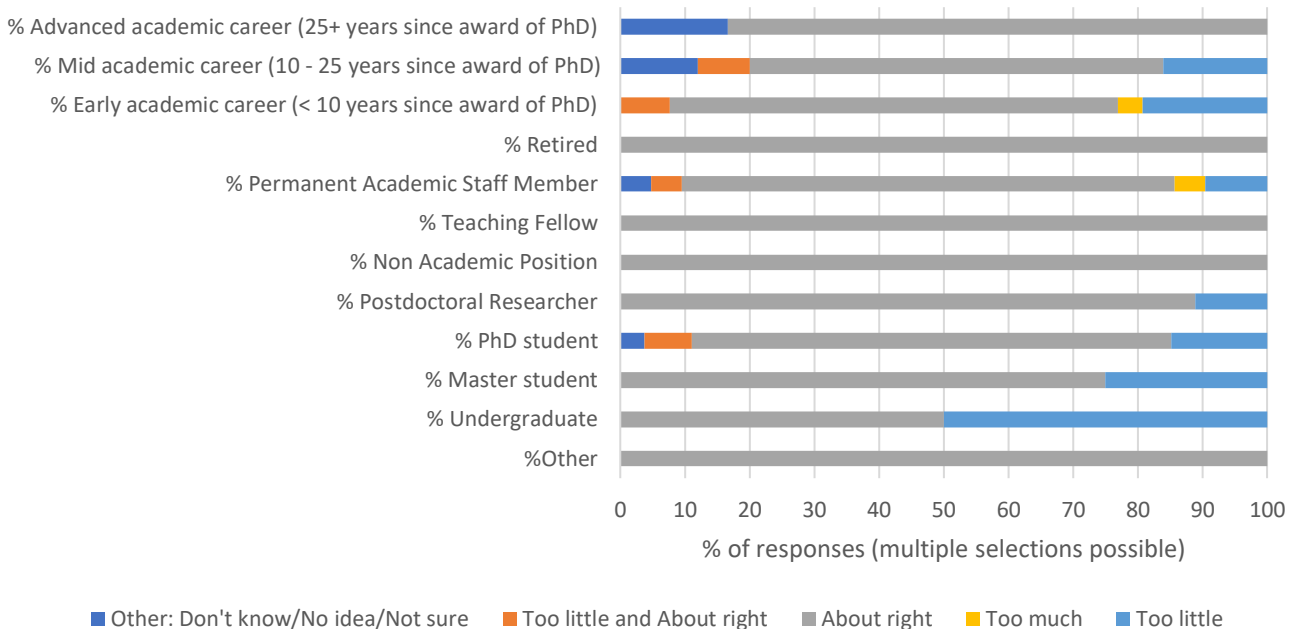
There were 95 responses where both career stage and a response to the question of VMSG’s promotion of diversity were given (Figures 7 and 8). From these responses, more early career



stage individuals (<10 years since PhD), undergraduates, masters students, PhD students and Postdoctoral researchers thought that “Too little” was being done to promote diversity and equality. More of the Advanced and Mid academic career individuals responded with “Don't know/No idea/Not sure”, and only Permanent academic staff and early academic career individuals thought “Too much” was being done.



**Figure 7: Number of responses: ‘Career Stage’ and “How much do you think VMSG is doing in terms of promoting equality & diversity in the community?” (95 responses)**



**Figure 8: Percentages: ‘Career Stage’ and “How much do you think VMSG is doing in terms of promoting equality & diversity in the community?” (95 responses)**



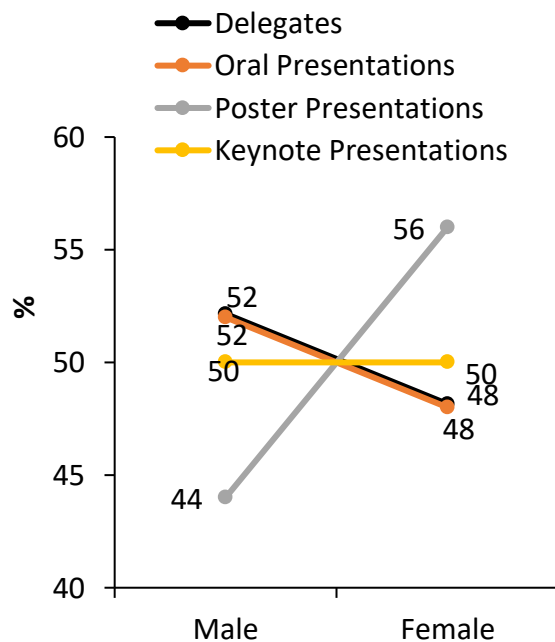


## B. Gender Diversity and representation at VMSG Annual Meetings

Collecting diversity information from annual meetings helps to identify trends in attendee patterns and inform development of strategy to move towards more inclusive meetings. In this document, due to the available data, we discuss gender as binary, and we acknowledge that the resulting analysis does not consider those who identify as non-binary. We also recognise that diversity extends beyond gender and career stage, however these data on protected characteristics were not collected during meetings and therefore cannot form part of our current analysis. Future efforts will be made to collect information such as, for example, ethnic diversity, socioeconomic class, sexual orientation and physical ability. Participants should be able to define their own characters such as gender, and so it is important that in the future this option is provided during conference registration.

### B1. VMSG2020

The VMSG Annual Meetings provide an opportunity for members of our community to share scientific findings and network in a relaxed environment. Free-text responses to the 2020 VMSG Annual Survey indicated that members are keen to see the numbers of presenters in terms of gender and career stage at the VMSG annual meetings published, and we have recently made it a policy to provide this information at each conference. It is well known that across STEM subjects, female representation at conferences generally lags behind that of male representation (e.g. Ford et al. 2018).



**Figure 9:** Percentages of male and female representation at VMSG Plymouth January 2020.

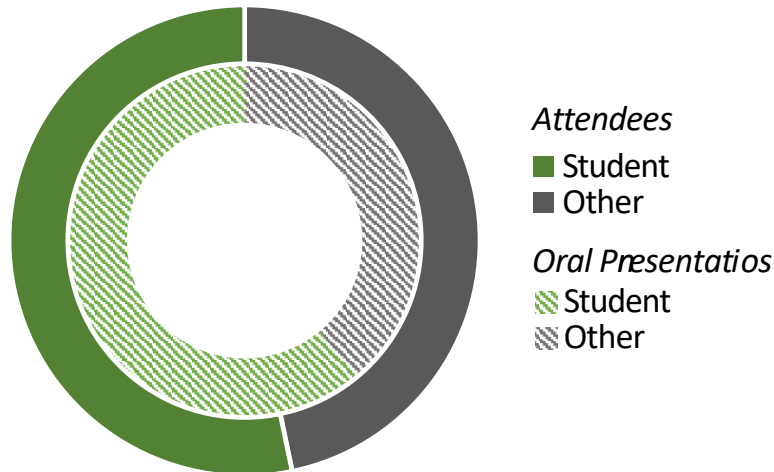
#### a. Gender representation

Figure 9 shows our analysis of data from the 2020 meeting. From the 140 attendees there were near even representation of gender in proportion of delegates (52% Male, black line) and this matched the proportion of oral presentations (52% Male; orange line). There was parity in terms

of the gender division among keynote presentations (50:50; yellow line), while a larger number of poster presentations were given by women (47 of 84, representing 56% of the presentations).

*b. Student representation*

From the 140 attendees at the 2020 VMSG meeting, 57% of the attendees were students. However, they had a proportionally larger representation during the meeting by giving 61% of the oral presentations (Figure 10).



**Figure 10:** *Proportion of student and other attendees and oral presentations at Plymouth.*

**B2. Comparison of data from 2015 – 2020 annual VMSG meetings**

We have shown the results for the most recent annual meeting, but how do these data compare to past meetings? The available data shows that in 2015, the gender balance was slightly tipped towards male attendees, with 45% female attendees (Figure 11). This gap is variable but has reduced over the past five years, with 48% of the attendees at the 2020 meeting being female.

It is interesting to compare trends of gender balance in attendees with the distribution of oral presentations. The proportion of female oral presenters has varied over the 5-year period with an average of 37%, compared to their attendance proportion which has averaged at 47%. Therefore, over this 5-year period females have been broadly under-represented at VMSG meetings in their proportion of oral presentations. Data from 2018 and 2019 meetings indicates that the number of female presentation requests is lower than that for male requests, and that the trends in proportion of presentations reflects this, particularly for the 2019 meeting.

The 2020 meeting was exceptional to the 5-year trends, with 48% of the oral presenters being female – directly matching the attendee proportion (Figure 11). The 2020 meeting was the first time an inclusivity statement was made when soliciting abstract submissions, and we note that 2020 was the most gender-diverse VMSG meeting in recent years:

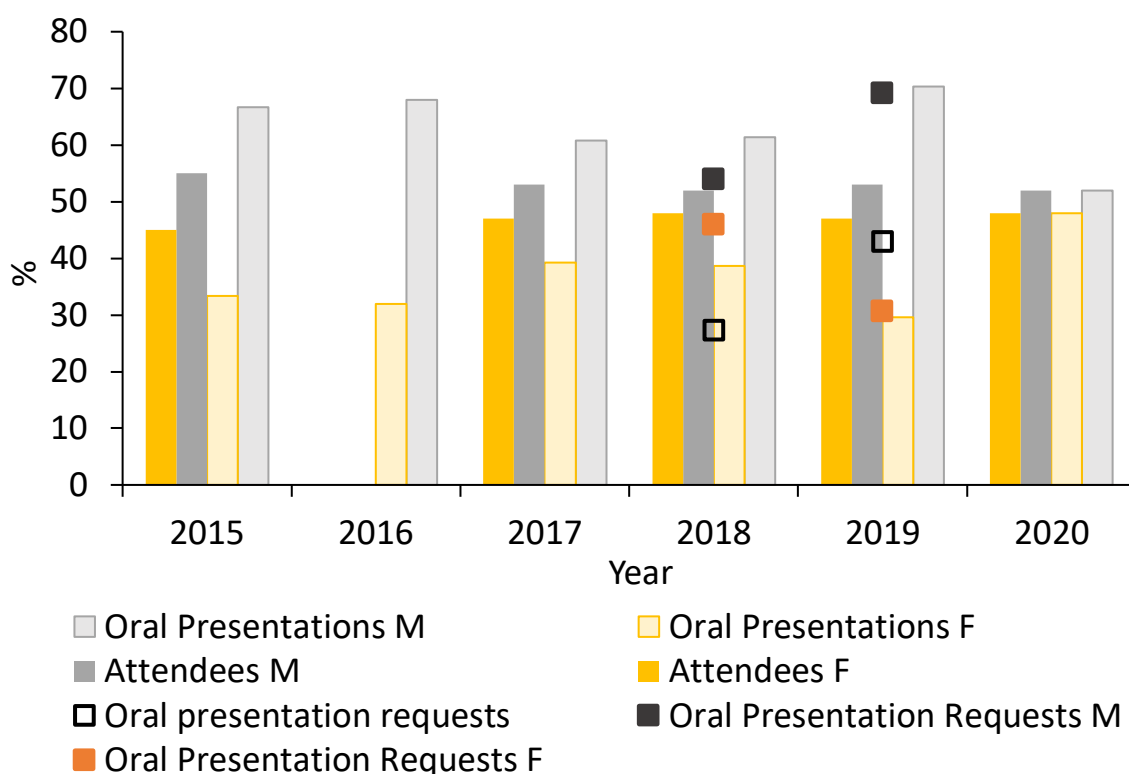
*“Thinking about attending VMSG (7-9th January 2020) in Plymouth? Wondering if this is the right event for you? The VMSG welcomes offers of oral and poster presentations from all those working in relevant disciplines. We aim to provide a*





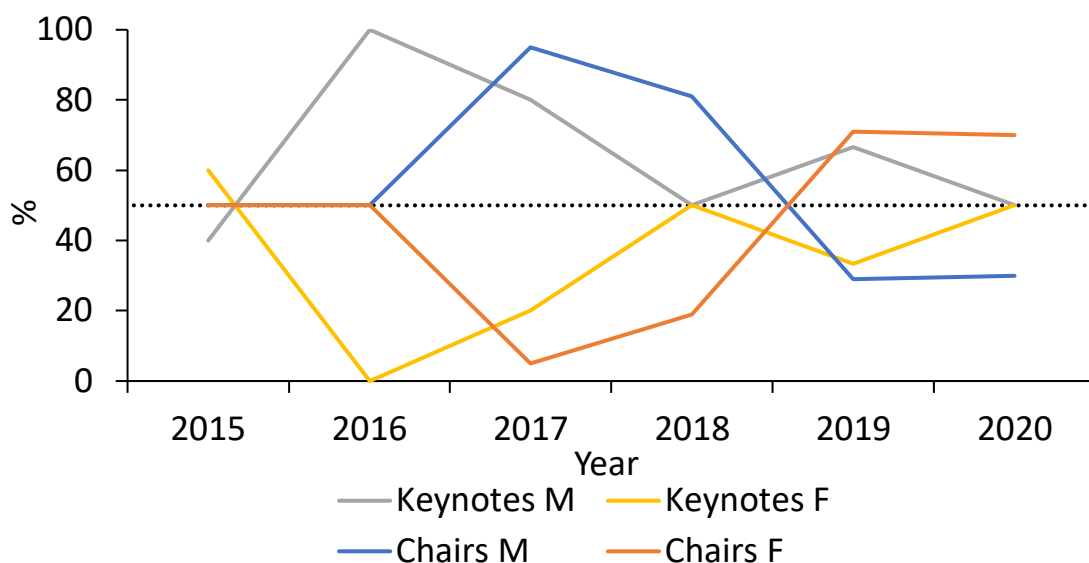
*supportive environment where all in the community are welcome and valued, and are keen to promote balance in terms of gender, ethnicity, religion, geographical location, physical ability, sexual orientation, socio-economic background and others. Our interest is in the science, and in your work.”*

We cannot categorically assert that the inclusivity statement directly resulted in the increased proportion of female attendees and oral presenters at the annual VMSG meeting, however we suggest this should now be considered as ‘best practice’ and be a requirement for all abstract submission advertisements in the future.



**Figure 11:** Percentages of attendees and oral presenters at VMSG annual meetings since 2015. Data for presentation type and the number of oral presentation requests for male/female is only available for VMSG 2018 and 2019.

The picture is a little more complicated when we look at the gender split in keynote speakers and session chairs (Figure 12). In the past 5 years, there have been a number of VMSG meetings where keynotes and chairs were male dominated. In the past three years, however, this difference has decreased, with an equal split in keynote speakers at the most recent 2020 VMSG meeting. This is a small dataset, but it does allow the reader to see that more male or female chairs doesn't necessarily result in more male or female keynote speakers.

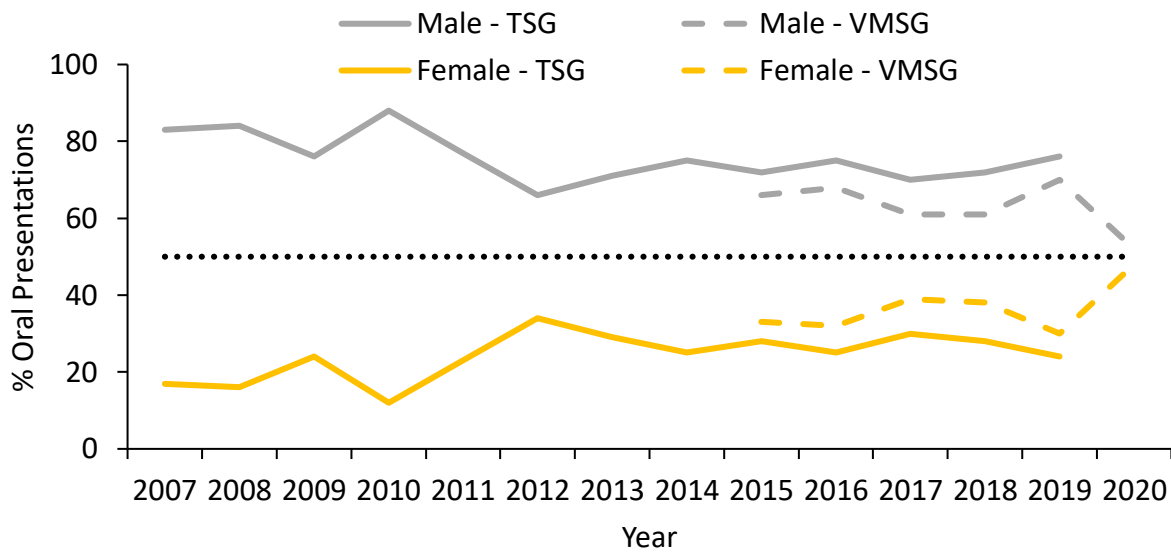


**Figure 12:** Percentages of keynote speakers and session chairs at VMSG annual meetings since 2015. Dashed line denotes 50%, i.e. equal female – male distribution.

### B3. Gender distribution comparison with other Special Interest Group meetings

It is of interest to compare results from the annual VMSG meetings with those available for the other Special Interest Groups of the *Mineralogical Society of Great Britain and Ireland* and the *Geological Society of London*. In a report published last year, the *Tectonic Studies Group (TSG)* presented an overview of gender diversity and equality for their annual meetings held between 2007 – 2019 (Bubeck & Farrell, 2019). Here, we pull out results of oral presentations from TSG annual meetings as an example for comparison with trends from VMSG meetings (Figure 13).

Figure 13 shows the gender distribution of TSG oral presentations shows a relatively steady proportion of female presentations of between 20% and 30% and an average of 24% of presentations given by women between 2007 and 2019. The authors of the study note that these results may be skewed by a lower number of submissions requesting oral presentations from women, a factor that might also play a role for VMSG presentation gender distribution (for example at VMSG 2019, where Figure 11 shows that presentations reflect requests). While at 37% the average proportion of female oral presentations at VMSG over a 5-year period is higher than that of the TSG meetings, we assert that efforts need to increase to ensure presenter gender diversity in future meetings; from encouraging female participation in the annual meetings, through to enabling diversity in oral presentations.



**Figure 13:** Gender split for oral presentations at TSG meetings from 2007 – 2019 (Bubeck and Farrell 2019), compared with figures from recent VMSG meetings.

### C. Recommendations for future VMSG meetings

The VMSG is committed to ensuring that our events represent the diversity of our whole community and in early 2020 we put together the following [equality and diversity statement](#) to emphasize our commitment to this:

“VMSG aims to provide a supportive environment where all in the community are welcome and valued, and are keen to promote balance in terms of gender, ethnicity, religion, geographical location, physical ability, sexual orientation, socioeconomic background and others. Our interest is in the science, and in your work.”

While we recognise that there may be several things that conference organizers may not be able to control with respect to EDI, there are, however, important ways that organizers can help ensure the conference encourages and supports equality, diversity and inclusion in our community. It is also important to note that it is only through data collection, by the organising committee and through engagement of the community with these data collection efforts, that demographics, including but not limited to gender, sexuality, ethnicity, physical ability and socioeconomic background can be measured and we can assess the effects of our actions.

The scientific and social aspects of the conference programme, the way this is put together and the way it is advertised in advance of the meeting may have a significant impact on diversity of those who attend the meeting. We therefore recommend the following factors are considered to ensure and enhance EDI at future VMSG meetings.

#### C1. Create a dedicated EDI Officer role on the local organising committee

There is a need to collect demographic data from VMSG conference participants to enable us to measure the effect of the equality, diversity and inclusion measures we promote, in terms of increasing the involvement of groups who are currently underrepresented. However, this data collection should be done ethically and with data usage made clear to all whose data is collected, with an ‘opt-out’ option available. Due to the sensitive nature of the data collected, we



recommend that all meeting committees have an individual whose role it is to monitor EDI in the planning and delivery of conferences. This individual should liaise regularly with the Equality, Diversity and Inclusion Officer of the VMSG committee.

## **C2. Conference Scientific Programme Design**

For the Scientific Programme, the local organising committee has significant control and influence on:

- Who the invited Keynote speakers are
- Who Chairs a session
- Who has an oral slot
- Who has a poster slot
- What the advertising material says about encouragement of EDI
- What the conference brochure says about encouragement of EDI

In accordance with the VMSG's [statement on Equality and Diversity](#), decisions regarding the design of the scientific programme should be based on the science. However, decision-makers should be trained in diversity and equality issues and the role of unconscious bias. The Royal Society video on '[Understanding unconscious bias](#)' may be a good starting point for decision-makers.

## **C3. Conference Social Programme Design**

There are also important steps that can be made to ensure that the conference is diverse and inclusive in the design of the social events programme. These include:

- Ensuring ample time for social interaction, and social events, during the day for those unable to attend evening social events.
- Making sure that there are a wide variety of non-alcoholic drinks available at evening receptions.
- Having a seating arrangement at the conference dinner that enables delegates to mix and meet new people. Recent models have included the organisers arranging seating plans in advance of the dinner.
- Consider running a 'meet the VMSG Council' event.
- Consider running ECR-targeted events.
- Consider how carers can be included in social events.

## **C4. Other ways to promote EDI at VMSG meetings**

All activities and venues must cater for visible and non-visible disabilities, e.g. wheel chair access at the conference venues is required, as are hearing loops in the main lecture theatre.

The local organising committee may also wish to consider:

- Allocating a quiet room for those who would like time-out from the conference and as a prayer room.
- Communicating childcare options and arrangements to the registrants as early as possible to assist planning.
- Identify areas that are suitable for the Breastfeeding Welcome Scheme <https://tinyurl.com/ybnakakv>.



- Displaying diversity by having stickers that delegates can use to display e.g. pronouns (she/her, he/him, they/their) made available at the registration desk to be affixed to name tags.
- Providing blank stickers and markers for adding any further information (e.g. Twitter handles, research expertise, etc.) to name tags if desired.
- Supporting the Hidden Disabilities Sunflower Lanyard scheme. Wearing the Hidden Disabilities Sunflower on a conference badge discreetly indicates that a delegate may need additional support, help or a little more time.
- Print name badges double-sided and in large font for increased visibility.
- Introducing a buddy or mentor system for those attending VMSG events for the first time.
- Consider providing clearly marked all-gender toilets.
- Bring public engagement and outreach activities into the meeting programme which promote EDI.

## **D. Code of Conduct at Meetings**

The VMSG has a duty in the public interest to provide a safe, productive and welcoming environment for all participants and attendees of meetings, workshops, and events regardless of gender, sexual orientation, gender identity, race, ethnicity, religion, disability, physical appearance, or career level. In addition, it is recognised that members of the VMSG community represent a range of political and religious views. The VMSG supports freedom of expression of these views where they are not harmful and are tolerant to others beliefs, and are expressed in a respectful manner. We have worked closely with colleagues at both the Geological Society of London and Mineralogical Society to establish a [Code of Conduct Policy](#). All VMSG members are required to abide by this Code of Conduct at our events (Conferences, workshops, fieldtrips, including ancillary events and social gatherings). It describes what the expected behaviour is, defines what unacceptable behaviour is, and clearly states the process that will be adopted when there are breaches of the code of conduct.

## **E. Summary and Conclusions**

Our analysis and discussion of the Equality, Diversity and Inclusion (EDI) data presented here, which is based on the VMSG 2020 Members Survey and conferences held in the last 5 years, allows us to reflect on EDI issues related to the VMSG community and also plan for future events and actions.

The Members Survey data has provided us with some indication of who the VMSG community is today. Although the survey has captured the views of only a self-selecting sub-set of the VMSG members who responded to the online survey, the data shows that the VMSG community is diverse in terms of gender identity, sexuality, geographic place of residence and views on EDI issues. Our analysis shows that it is important to analyse trends both for the data as a whole and within sub-groups, as there is a risk that by only considering bulk data the views of under-represented groups may become obscured.

The data we have for conferences was not specifically collected for EDI analysis purposes and so, for example, our approach to gender assignment in this report is not sufficient as participants must be able to define their own gender. Despite this caveat, overall the data available for gender identity suggests participation in VMSG conferences is broadly representative of our community.



Our analysis has exposed the fact we do not have data on important characteristics -- such as ethnicity, religion, socioeconomic background or physical ability -- and our analysis has therefore been necessarily limited in its scope. We recognise the urgent need for improvement with respect to EDI for under-represented groups, and that substance rather than symbolism is required. The VMSG Committee is now taking positive steps to help further increase EDI at our events. For example, we have recently revised our 'Guidelines for VMSG Conferences Organisers' and now recommend the appointment of an EDI Officer on the local organising committee, who will liaise with the VMSG Equality, Diversity and Inclusion Officer and VMSG Public Engagement and Outreach Officer regarding systematic data collection and design of the scientific and social programmes.

The mission of the VMSG remains to provide a supportive environment where all in the community are welcome and valued, and promote balance in terms of gender, ethnicity, religion, geographical location, physical ability, sexual orientation, socioeconomic background and others. Our interest is in the science, and in your work. We welcome all feedback and discussion on how we can improve our EDI efforts.

For any questions about the report, please contact Samantha Engwell ([sameng@bgs.ac.uk](mailto:sameng@bgs.ac.uk)), Janine Kavanagh ([Janine.Kavanagh@liverpool.ac.uk](mailto:Janine.Kavanagh@liverpool.ac.uk)), or Sally Gibson ([sally@esc.cam.ac.uk](mailto:sally@esc.cam.ac.uk)).

This document is a preprint submitted to EarthArXiv. The final version of the report will be published on the Volcanic and Magmatic Studies Group website (<https://vmsg.org.uk>).

## References

Bubeck, A., and Farrell, N., 2019. A Report on Gender Diversity and Equality at Tectonic Studies Group (TSG) Meetings: 2007-2019. EarthArXiv. DOI:10.31223/osf.io/p5xf7.

Ford, H.L., Brick, C., Blaufuss, K. and Dekens, P.S., 2018. Gender inequity in speaking opportunities at the American Geophysical Union Fall Meeting. Nature communications, 9(1), p.1358.