

Participant Information Sheet

Research Title: General flowering mapping project

Researcher(s): Zoë Lieb and Dr Matthew Luskin **Centre for Biodiversity and Conservation Science, The Goddard Building, School of the Environment, University of Queensland, University Dr, St Lucia QLD 4067.**

Thank you for your interest in participating in this research project. Please read the following information about the project so that you can decide whether you would like to take part in this research. Please feel free to ask any questions you might have about our involvement in the project.

If you decide to participate in this research, please keep in mind that your participation is voluntary. If you do not wish to take part, you do not have to. If you decide to take part and later change your mind, you are free to stop at any time, and you would not need to give any explanation for your decision to stop participating. If you choose to withdraw your participation, your data will not be used in the research. We intend to use this survey in conjunction with other research to publish a peer reviewed article within the next 12 months. If you wish to withdraw your participation, please inform the researchers prior to 1 November 2023.

You will be given the Participant Information and Consent Form to sign and you will be given a copy to keep. Your decision whether you take part, or not to take part, or to take part and then withdraw, will not affect your relationship with the University of Queensland.

What is this research about?

The Asia tropical research community is likely to experience a once-in-a-decade phenomenon. 2023 is likely to be an El Niño Southern Oscillation event and, paired with other conditions, may result in a general flowering and fruiting event for lowland rainforests.

General flowering and fruiting (GF) refers to the phenological event when many or most trees in a forest flower and subsequently fruit over a short period, producing a rapid and distinct pulse in resource availability. Rather than following an annual cycle, GF usually happens once every few years and is often a highly visible event.

This is big news, and we have a limited opportunity to collect data to better map and analyze these critical fruiting processes that may not return for 2-10 years.

This questionnaire is a pilot to gauge interest and determine data availability for a general flowering map project of Asia, led by Zoë Lieb, a PhD candidate at the University of Queensland, Centre for Biodiversity and Conservation Science, advised by Dr. Matthew Luskin and in collaboration with the Ecological Cascades Lab.

The Ecological Cascades Lab is investigating an approach to map GF events that have occurred over approximately the last two decades, as well as gather collaborators to collect data in the coming months of this potential GF event. Features and spatial and temporal scale of the map will depend on data availability, suitable remote sensing resources, and the wider needs of our research community.

What will I need to do?

If you agree to participate, fill out the provided survey via the link to Survey123. The survey itself will take 5-15 minutes, depending on how much information you choose to share. The first part of the survey includes general questions about general flowering and your insight on how we approach this type of project. The second half of the survey, we ask that you share your specific knowledge of when and where general flowering and fruiting events have occurred. The survey can be completed completely online. However, if you would like assistance, please contact Zoë Lieb for support (z.lieb@uq.edu.au). Participants that are willing to contribute data or share known sites and dates of flowering and fruiting events are welcome to participate as co-authors on our upcoming publication.

What are the possible benefits of taking part?

Flowering and fruiting in the Asian tropics are a critical yet understudied resource cycling events. Resource availability in such ecosystems likely have large and dynamic impacts on other trophic levels, with implications for wildlife populations and species interactions. We believe that by developing maps of general flowering and fruiting, we can include resource availability as an important covariate in a wide range of tropical ecology studies. Our aim is to increase the temporal and spatial resolution of these events.

We aim to publish these outputs rapidly so that they can be used throughout the field of tropical ecology and inform ecological research.

What are the possible risks and disadvantages of taking part?

We do not anticipate significant risk or difficulty with completing this survey. Participants may have some issues with filling out the spatial element of the survey and correctly locating the point on the map where they want to attest that they noted flowering and fruiting. If you have an issue with this stage of the survey, you may simply describe the area (reserve name or nearest town, or other identifying information), or contact Zoë Lieb for assistance (z.lieb@uq.edu.au).

What will happen to the information about me?

All information collected about you will remain confidential. Given the small number of participants/rare identifying factors of your data, it might not be possible to guarantee complete anonymity.

Data collected for this research will be stored on Survey123 which only Zoë Lieb and Matthew Luskin have access to. Once the survey is closed the data will be downloaded and stored onto Zoë Lieb's personal password protected Dropbox account and the survey form will be deleted and only Tom Bruce and Matthew Luskin will have access to the data. Spatial data will be stored on Zoë Lieb's password protected ArcGIS Online account. Your name and contact information will not be shared or attached to any of your responses. Name and contact information will be coded and stored separately until the conclusion of the project when it will then be deleted.

It is anticipated that the results of this research project will be published and/or presented in a variety of forms. In any publication and/or presentation, information will be provided in such a way that you cannot be identified, except with your express permission.

What will happen if I decide to withdraw?

Your participation in this research is voluntary and you are free to withdraw from the research anytime without needing to provide any explanation, and you would not receive any penalty or bias as a result of your withdrawal. Should you decide to withdraw, all the information collected from/about you will be destroyed and will not be used in the research. We intend to use this survey in conjunction with other research to publish a peer reviewed article within the next 12 months. If you wish to withdraw your participation, please inform the researchers prior to 1 November 2023.

Can I hear about the results of this research?

All participants have the option to express interest in continuing further participation in the research project, and we welcome any and all continued collaboration. Additionally, we intend to publish our results within the next year. All participants and the public will have access to our results through this publication.

Who can I contact if I have any concerns about the project?

This study adheres to the Guidelines of the ethical review process of The University of Queensland and the National Statement on Ethical Conduct in Human Research. Whilst you are free to discuss your participation in this study with the researcher contactable on z.lieb@uq.edu.au if you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Coordinator on +617 3365 3924 / +617 3443 1656 or email humanethics@research.uq.edu.au

This research Ethics ID number: 2023/HE001487