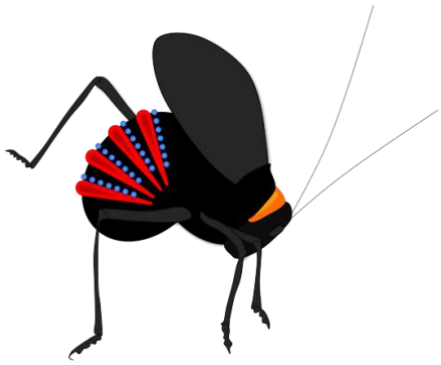

Insect Conservation Lab

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Welcome

Welcome to the lab! I'm really glad you decided to join us to do some science. I sincerely hope you have fun while in the lab, make some great new friends and explore exciting landscapes literally or figuratively. At its best, science is a challenging and rewarding activity, and my hope is that we help you to develop skills and expertise that will allow you to achieve your career goals, whatever they may be. This little handbook contains some basic information about how this lab group approaches science and is intended to help set expectations and start conversations about how best to operate. Overall there are a few main points:

- Be kind, supportive, generous, inclusive and open. We are collaborators. We help each other and work together. We share knowledge, ideas, time, resources, and tools freely wherever possible. This extends beyond the lab to the School of Science, HIE, WSU, biology, science, and the general public. Being generous and open rather than defensive is always the best policy, sometimes things don't go as planned, but the net gain of openness and generosity is positive in my experience.
- Communication is key. Each project has a leader and other team members (e.g. co-supervisors). It is essential that all team members are kept in the loop as decisions are made either at the time, or provided with summaries about plans forward and regular meetings are held. Cake always helps bring people together.
- Reach out. Ask for help, ask for clarification if you aren't sure or you don't understand. Be brave and please don't suffer in silence. We are all human and come to science with different skills, knowledge, and experience. We all have something to learn from each other and can all grow because of it. I do not expect people to be able to do everything, but I do expect independent research into problem solving and bringing solutions to the table where ever possible.
- Own your work. I will provide the all the resources, training, support, and guidance I can at every stage. If I can't, I will help you find someone who can. But the drive to answer scientific questions, collect data, and complete the project must come from the project leader, i.e. you! Irrespective of career stage (undergraduate to PhD) everyone is ultimately responsible for driving their projects all the way to publication. Where projects are not published by the project leader in a reasonable time, the lab retains the data and leadership of the project will be transferred to another person.
- Ideas are cheap and near-infinite. There is nothing new under the sun, and there are literally billions of ideas to test in science. It is the careful testing of ideas that costs time and energy, so getting caught up in accusations of 'idea stealing' is in most cases misguided and short-sighted. In the rare circumstance where things go awry, we will work together to sort things out, but generally speaking all such problems can be solved by friendly collaboration and focusing on the increased potential that comes with more people working on a problem.
- Questions over organisms. We all get caught up in the wonder of the organisms we work on and that's a good thing, but we always aim to answer questions and choose the organism to fit the question, not the other way around.

If you would like to discuss changing anything in this document please let me know! It has been compiled based on my experience and that of colleagues, but it is not perfect and will be updated as better ways to do things come to light!

Yours in science,

Kate

This handbook is based on the one written by Tom White for his lab circa 2018 - Thanks Tom!

Setting expectations

All too often differences in expectations lead to miscommunications and difficulties between people and unfortunately research groups are not immune to such problems. The main aim of this document is to spell out expectations in detail and spark conversations around complex topics so we're all on the same page. When starting out in the lab it's always a good idea to have a general chat about how the science will go down.

Some common topics worth talking about:

- Publishing your work
- Meeting frequencies
- What you need to do your best work
- Working hours
- Time off
- Collaborations
- Side projects
- Money. It's important to know where the $ are coming from for your project and how much you have.
- Time allocated to left over work from previous labs. I want you to achieve your career goals, so I want you to get your previous work published. I also don't want you to spend all your time on previous work. Depending on your level we need to come to an agreement about how unfinished work will be completed, while ensuring your project in my lab also gets done.
- Anything that's on your mind that you're not sure about.

Fighting the good fight

We stand together. We are anti-racist. We stand with black, indigenous, people of colour. We know that gender is not binary and that love is love and we stand with all members of the LGBTI+ community. We are feminists. We aim to fix systems, not people. We fight for accessibility. We know that diversity is strength. We do not tolerate any form of harassment or discrimination toward any of our lab members by anyone. My hope is that we all stand up for each other in appropriate ways in the face of any such thing. Such things include, but are not limited to, offensive verbal comments and microagressions related to gender, sexual orientation, disability, physical appearance, body size, race, religion, deliberate intimidation, unwanted photography or recording, sustained disruption of discussions, inappropriate physical contact, or unwelcome attention.

If you or someone you know does encounter such problems, you are strongly encouraged to contact any one of these, as appropriate:

- Me (I will listen and take you seriously),
- your co-supervisor(s),
- emergency services (000, or (02) 4570 1177 for 24-hour campus security),
- university complaints services (including their anonymous helpline), or university mental and physical health services.

Getting started checklist

- Get your student/staff card from Student Services
- Join the lab slack channel at umbers-lab.slack.com
- Complete a risk assessment associated with your project
- Get swipe and key access
- Complete the lab induction
- Have a chat about expectations, philosophy, science, table tennis, baking, and so on.

Communication

Lab meetings

We aim to have a one-hour lab meeting each week. We use the time to talk nonsense, get to know each other, discuss any problems people might be grappling with, papers or current topics, handle lab business, practice presentations, and/or seek feedback on work. Irregular lab meetings will be scheduled from time to time to deal with various circumstances as the arise. Attendance by everyone is expected unless absolutely impossible.
Other than lab meetings, there are several activities that I expect us all to attend whenever possible as part of being engaged scientific citizens:

- Seminars
- Animal behaviour reading group
- R support group
- Conferences

Slack

Most of our day-to-day discussions take place in Slack (http://www.umbers-lab.slack.com/), which is free and cross platform. Slack helps us avoid email. There are a number of 'channels' that everyone is a part of for general discussions (#lab_news, #lab_grants, etc.), as well as project-specific channels for ongoing projects that include just the relevant team members. You can also message people directly by clicking on their name. Check it out for yourself, here are a few quick tips:

- Use the @ symbol followed by a person's name to alert them within a channel (e.g. @kate) • Use @channel to alert everyone within an entire channel
- If you select a person from the sidebar you can send direct, private messages

Website

I keep the lab website fed (www.InsectConservationLab.com). It includes brief descriptions of each lab member's project and contact details. If you would like anything at all (photograph, contact details, description) added or changed just let me know. I also suggest everyone build and maintain their own personal website which is very simple and free. It offers you complete control of the information that will crop up at the top of search results when friends, collaborators, and employers look you up (which they all always do).

Space

Lab space

Our main lab is **C16**. Please use it! We need to share the space and everyone's projects are important, so we need to follow rules so the system works. Here they are:

- Keep it tidy.
- Be careful not to disturb each other's work.
- If something gets broken, PLEASE tell Kate! It's OK! Getting to a field site or starting an experiment only to find that equipment is broken or reagents are used up is really annoying and potentially a major problem.
- Report to Technical staff and Kate if there's a problem or concern about anything to do with safety or the way the lab is being used.

We also have a room in S8 for optical stuff that requires a clean space, like imaging and spectrophotometry. In this space there is a locked cupboard for expensive gear and a key box for the keys to that cupboard. The code to the key box is given out on a need to know basis ☺

Office space

Honours, Masters, PhDs and postdocs will have their own desk space somewhere on campus depending on what's available (which we have minimal control over). Shorter-term and/or undergraduate lab members generally aren't given a dedicated space, but you're welcome to work and store your belongings in the lab on a day-to-day basis if you like. I often find the occasional day working at cafes or the library just as nice as an office.

Equipment

We have a list of equipment and can access other equipment owned by the School of Science and the HIE. This includes video and digital cameras, spectrometers, full-spectrum cameras, sampling & field equipment, etc. Typically, all gear has been purchased from my extremely hard-won research grant money, has been carefully selected for purpose, and is absolutely precious! In several cases some cameras are no longer made and extremely difficult to replace. Gear is also there to be used, but please be aware that many items are not standard university kit and that we are lucky to have them!

- All gear use should be recorded on the Lab Gear google sheet pinned to the Slack channel #lab_gear.
- Each piece of equipment will require some kind of training that Kate is happy to provide.
- If someone outside the lab needs to borrow a piece of gear, direct them to Kate.
- All field gear should be left clean and tidy after a field trip so others can use it

Work hours and time management

We are all self-motivated so lab members set their own working hours — as long as our work gets done. I expect you to be on campus most working days as it is appropriate for your level. I expect PhDs and second year MRes to be on campus around 35 hours per week unless special arrangements are made. There are only a couple of circumstances in which I need to know where you are at a given time for reasons of safety, mostly relating to off-campus activities like fieldwork during which daily call backs are standard procedure. Otherwise I expect everyone to make themselves available for lab meetings, seminars, and other school/university/community-related events. Everyone is free to send messages or emails at any time with no expectation to receive a reply outside of others' normal working hours. Your mental and physical health is more important than your work. It is OK to talk with me about health-related problems you're grappling with, but you are not obliged to. If you are unable to work because of health problems we will need to sort out a flexible plan, most circumstances can be catered for without problems. For temporary ailments like colds and flu etc, do not come to university! Look after yourself and others by staying away. There are vanishingly few academic emergencies, but if there's something pressing like lab-colony maintenance, let me know and as a team we can sort out a solution.

Funding

I expect every postgraduate member of the lab (Masters and PhD) to actively pursue financial support for their project. Your ability to win money to support your science is something you will be judged on later in your career, so it's a good idea to start early. There are many small grants around for project and conference and travel related expenses. There is a channel dedicated to grants in Slack and there are several listed on the lab website. Some general guidelines I expect you to follow when applying for funding:

- Discuss plans for grant applications with me and your team members
- Read all the eligibility conditions and application requirements carefully
- Give plenty of lead-in time. A 'rush job' is easy for a grant committee to spot and dismiss.
- You must give your team members time to contribute to the writing of the grant.
- Apply for funding for discrete parts of a project
- Give clear, detailed budgets in your application

Field Work

One of the best bits of science is doing fieldwork. It can also be logistically, scientifically and emotionally challenging. "Failing to plan is planning to fail" has never been more applicable to a scenario as it is to field work. There are many considerations, including:

- TEMS: this is the travel portal for the uni that you will need to use to book all your travel and field work is included in that, there are actually quite a lot of training resources online, but I'm also happy to help you with it. The people in the travel team are very helpful too.
- Being organized with equipment, ethics applications and scientific licenses, all of which can take several months to prepare and process.
- Safety: this is super important in the field. Your risk assessment will help you understand the safety procedures you'll need to follow for your project, but some of the basics are:
    - no one should be remote conducting field work alone.
    - Basic first aid is required for at least one of the participants
    - First aid gear should always be carried including a snake bite kit and knowledge on how to use it and everyone on the trip should know where the kits are

    - Communication should always be possible, mobile phones, satellite phones, EPIRBs should be carried and everyone on the trip should know where the gear is.
    - A list of emergency contacts should be carried and everyone on the trip should know where the list is.
    - GPS and paper maps are BOTH required for remote field work
    - Call backs must be strictly adhered to, no exceptions.
    - Stay up to date with weather warnings and bushfire with emergency apps and be ready to cancel field work during adverse conditions
    - Notify park managers when and where you planning to work in National Parks so they know to come find you in an emergency.
- Volunteers: We often need help from volunteers. To come along on field trips they need to be registered officially with the university and sign a copy of the Risk Assessment to say that they understand it and will abide by it.

Project and data management

Science is about discovering truth. It is a noble pursuit and at its best when it is transparent and accessible. We therefore strive to conduct open, reproducible work to ensure our results make a useful contribution to human knowledge. This means that data must be responsibly curated and stored, and the results of our efforts are transparent. The data you generate are the gold. It is all about the data. Data hygiene is therefore always number one priority, and as a project leader it is your job to ensure its integrity. I will be strict about this. It's important to remember that while any data we generate are 'ours', they are also always part of a broader hierarchy of ownership that flows:
you -> the lab -> the university -> the science community -> society
This is true in a literal sense since your work takes place within the lab that makes the work possible, which is based within the university (and legally owns the data & IP), and much of our work is directly or indirectly publicly funded, hence the products of our work belong to the general public.

Trust

Science is built on trust. Trust that everyone is aiming to uncover the truth above all else. Trust that people do what they say they will. Trust that people are honest and big enough to admit mistakes. Trust that we have each other's best interests at heart. Trust that people speak up when they are concerned. Very recently (2020) there was a massive outing of a researcher in ecology and evolution providing false data to their colleagues for years. This has prompted everyone to ensure that we have clear guidelines surrounding data management and also to highlight that ultimately, we must trust each other. The following guidelines are set out to ensure that we keep all our practices as transparent and consistent as possible. That way we can be confident and *know*, as far as we ever can, that we're all working toward the same goals.

Project structure

We are hypothesis generators and hypothesis testers, but we don't go fishing. What does this mean? Clear questions, hypotheses, predictions are required for every project and they should all be laid out in a project plan that is periodically revised from time to time. They must be generated a priori, that is prior to the experiment and not fit to the results after the fact.
Take time to think about how a project is structured and consider adopting a standard approach for the storage and management of information relating to a project. A 'project' is a discrete and self-contained collection of information (data, code, notes, manuscripts) relating to a specific aim. A single thesis chapter, for example, would be a sensible project, and breaking up larger pieces of work in this way makes everything more manageable. For example, a project may be organized with the following structure, and it means that everyone involved always knows where key information can be found:

- project_name
- data (contain raw data, such as images, spectra, or videos, as well as the processed products for analysis)
- ms (contains notes and the draft manuscript associated with the project)
- figures (figures to be included in the manuscript, typically generated in R)
- results (programatically-generated output from data handling and analysis such as tables of statistical results, which can be re-generated at any time) – R (code for processing and analysing data)

Specimen labelling and storage

Specimens collected for projects have a sequential number starting from 001 to 999 and an accompanying spreadsheet of metadata. All samples for projects are added to that basic sequential numbering system and no

numbers are reused in a project. A project identifier such as a short project acronym is should precede the sample number, e.g. IBFR001. Samples are stored in our freezers or in the lab cupboards as appropriate. Individual tube must be labelled racks or bags of samples must be labelled. General guidelines include:

- Sample number
- Species name
- Date collected
- Collector's name
- Collector's contact info (email address or mobile)
- Collection location

Labelling should be done with pencil on paper that is placed inside the tube, or on the outside of the tube with marker such as sharpie. BE WARNED! Ethanol will erase all sharpie ink in seconds and has the potential to leak out of almost any tube so don't take short cuts!

In addition to these guidelines, there are also rules around labelling flammable reagents like ethanol that we must legally adhere to that you will learn about during your lab inductions.

Data Hygiene

Data are everything in science. Our data are our number one priority and cutting corners is asking for trouble! Be careful to curate your data in a neat and tidy format from the very beginning for ease of use and future-proofing. Remember, your data will be published along with your paper so the world we eventually see it and they will need to be able understand it. Some key tidy-data tips include:

- Save your data in a universal text format. I like .csv, but .txt or tab-delimited formats are good too. Avoid proprietary formats like excels (.xlsx etc.). They're more prone to error and corruption when excel decides what's best for your data, and they're also much less backward-, forward-, and cross-compatible.
- Do what ever you can to have as **FEW** data files as humanly possible.
- Avoid creating new spreadsheets where ever possible. Add columns to pre-existing sheets, we always aim for the fewest number of files possible!
- Use 'flat' spreadsheets, don't make multiple tabs in excel workbooks this can very quickly lead to confusion.
- Each column in your data frame should be a single variable (e.g. mass, time).
- Each row in your data frame should be a single observation
- Only use NA for missing data only (not 0, blank cells, "missing", etc.)
- Use numbers rather than text wherever possible (0 for no, 1 for yes)
- Don't use spaces or caps in file names or variable names — it makes them harder to work with programmatically. Use an underscore when necessary. For example, feeding_date is a much better variable name than Feeding Date, and feeding_experiment.csv is a better file name than Feeding Experiment.csv).

Version control and backups

We work out of shared dropbox folders and use GitHub for keeping records of the different versions of project documents. Dropbox makes it simple to work collaboratively on projects via shared folders, which we will do often, acts as a first-line backup, and ensures everyone involved in the project has access to the data. Dropbox has a limit for free use, so if your project requires more memory, we will devise a plan using external hard drives. For the most part its solvable with a free dropbox account. For the long-term storage of larger data (e.g. video files and RAW photos), we have a fleet of dedicated lab hard drives. Even so backups will fail, so make sure you have a robust strategy in place.

Data collection and scoring

Raw data are the videos, spectral files, photographs, sequence files, and so on. All data files and analyses must be tracible back to the raw data files. All projects must have a virtual or paper lab book associated with them that acts as a diary that anyone can refer to to understand how data were collected and scored. This is extremely critical, data hygiene is everything.

Double-blind data scoring

It is critical that we score our data without knowledge of the treatments / species or other identifiers that could bias our measurements. This is not because we would actively try to skew data, but because human brains try to see patterns where they want to and we're so good at it that we must guard against it to be confident in our results. Reviewers will push for this at publication for good reason, so it's best to do it from the start. If it is impossible to remove the treatment from the scoring, for example, if the treatment is obvious in the footage (e.g. species of predator), then we will always get an independent person to score our data who has no knowledge of the project at all. We can then look at any observer bias quantitatively and present those data in the paper.

Behavioural data

Any behavioural experiments or observations must be video recorded so that scoring can be done carefully, objectively and by more than one person. Scoring videos can be done with BORIS, ImageJ and a bunch of other programs.

Chemical data

All GCMS LCMS output files should be kept well labelled and organized so one can return to the original sample in a freezer somewhere if it exists.

Spectrophotmetric data

All original spectral reflectance files must be collected as text files or something else generic and kept well labelled and organized, meta data should always be saved.

Genetic data

All original sequence files must be kept well labelled and organized

Physiological and size metric data

All physiological data should be kept in original format. All length measurements should be scored in mm and mass in g.

Data Analysis

Obviously, data analysis is tailored to each individual project, but there are a few important guidelines that don't change:

- We conduct all analyses in R unless we are forces elsewhere.
- Methods for data analysis should always be discussed and outlined before data collection begins.
- Once data are collected, basic descriptive stats are generated and scrutinised by the team.
- Reasons for excluding any outliers are recorded and justified in the methods.
- Data are always analysed based on the questions and hypotheses formed at the start of the project, no fishing expeditions!

Code structure

We use R for data analysis and processing. R is unfamiliar and confusing at times and can be a challenge in and of itself, but no-one is expected to be fluent from the start, we are all still learning. We all support each other in developing our R skills. HIE has an R support group that meets once per week that we aim to attend as a group. We also have a Slack channel #lab_statshelp that anyone is free to post on. As with data it is important that your code is clean and tidy so it is understandable and useful to others and our future-selves. This doesn't mean code has to be perfect or even very good to start with, but these tips will set us all on the right track:

- File names should be informative and not contain any caps or special characters or spaces. e.g. feeding_analysis.R is good, main_stuff.R is no good.
- Code should be commented assuming that someone will read it that has no experience in the project, such that the purpose of each line (or group of related lines) is clear to a completely naïve reader. Remember ultimately, when published, your code will be available to anyone in the world to download, read and hopefully use!
- Larger, functionally-unified chunks are grouped using commented lines of --- to make headings conspicuous. For example:

```
# Load libraries ----------------
# Plot data ----------------
```

- Use relative file paths rather than absolute. Assume that the code is being run from the folder it is sitting in and use file paths relative to that location. For example, if your code file is in a folder called R within a project's folder and the data (e.g. feeding_data.csv) are in folder called data, it's good to load the data by calling:

`data <- read.csv('../data/feeding_data.csv').`
The absolute-path alternative might look like
`data <- read.csv('C:/kateumbers/publications/project_moth/R/data/feeding_data.csv')`
which won't run on anyone else's computer!

- Use only <− for assignment, not =

Publishing and authorship

"If science is not published it may as well never have happened". This was said as he slammed his fist on the table by a usually very quiet and reserved, well respected Professor in a department I once worked in. Publication the most important way the results of science are recorded. Not every experiment or study is publishable by itself. Short-term projects like internships, summer school projects and undergraduate course work projects are very often pilot studies or tests of new ideas, that lead on to large-scale publishable projects by the same or other lab members. But for projects that are publishable we will support and strongly encourage it! Publishing often requires sometimes significant extra time and effort beyond the formal requirements of a program or position, be it PhD, Masters, Internships, etc. Authorship depends on a persons' role in a project.

Lead authors

The first (first) author's job really is to take the lead, make contact with people, organise meetings, bring agendas, identify problems and ways forward, write, analyse, etc. You bring the hustle and the energy to push the publication forward. You should be bugging me and your co-authors to read your stuff, help you, meet with you etc, not the other way around. The publication should be constantly moving forward at an agreed pace and some progress should always be made, it doesn't work if things happen piecemeal. We will meet and make plans as to the jobs that need doing and decide who will do them and by when. We all then meet the milestones we set by the time we meet again. Leading a publication is a major time and energy commitment.

Transferal of lead authorship

Lab members will be an author on any publication(s) resulting from the data they collect so long as they are available and contactable to endorse the submission of manuscripts, but may not end up being a senior author if they do not lead the project consistently and with continued progress all the way to publication. If the lead author doesn't lead and keep things progressing (e.g. If milestones are missed several times, the pace of progress slows, or people drop out of contact for several weeks), after discussion someone else will step into the lead role, sometimes that's an author already on the paper, sometimes that's someone not previously involved in the project that is brought in to lead it.
In cases where leading a publication is not possible because continued involvement is not possible the project lead will be transferred to someone else, e.g. me or other lab members to get it published. For all of these reasons it is critical that the data and code curation guidelines outlined above are followed.

Minor authorship

Anyone who makes a substantial contribution to a project will be included as a co-author on the related publication(s). Simple rules do not to capture the complexity and variability of contributions, but some examples when authorship is usually merited include:

- Conception and design of a project.
- Data acquisition or collection.
- Data analysis and interpretation.
- Drafting the publication or associated materials, and/or critically revising it.

We take the responsibility of co-authorship seriously and all co-authors must be prepared and available to accept responsibility for the accuracy and integrity of all aspects of the published research.

Open access

As part of our commitment to open science all of our publications are made freely available. We generally don't have funds for open-access publication, thought it always pays to check the with the library and the Dean of Research in case, but we can achieve this in a few ways:

- We host copies of the final published versions of our work on the lab website. Most journals consider this a breach of copyright, but academic publishers are genuinely evil so meh. Google Scholar will find pdfs on personal sites so the impact of this form of sharing is broader than you might expect (i.e. anyone that comes across our work via Google search will have free access).
- For the same reason above I encourage you to share your work as freely as possible for example, on personal websites.

Pre-submission checklist

- All co-authors have seen the raw data, the analysis, and the manuscript and have had an opportunity to look into and contribute to all of these to their satisfaction.
- All co-authors are included on the manuscript, and are happy to have it submitted.
- Reasonable attempts (email, phone, Slack) have been made to contact all co-authors about the impending submission of the manuscript and have been removed from the author list if unresponsive for more than a week or two.
- The data and code underlying the manuscript are tidy (as above), and at least one co-author has reviewed it.
- The data and code are or will soon be made publicly available. One strategy used by our friends in Tom White's Lab at USyd is to use GitHub in the first instance, and then they 'mint' with a persistent doi from Zenodo upon acceptance. You could also simply archive your data and code using a popular repository such as figshare or Dryad.
- A preprint has been submitted, accepted, and published on bioRxiv (this can take 1-2 days) (we're just starting to incorporate this into our publication process)
- Submit the manuscript.
- Celebrate your submission! This is very important, by the time it is actually published it is usually old news! CAKE!

Promoting our work in the media

Once it's published, it's time to tell the world about your great data! And, because our data are ultimately owned by the public, we have a responsibility to communicate our findings to the public. We do this through traditional and social media. I expect you to all make the effort to communicate your science to the public in whatever way you feel confident. There are a few important guidelines around this:

- Polite and level-headed professionalism is paramount
- Data and results should not be communicated before publication / pre-print upload
- Be considerate and ethical:
    - do not post photos of others without asking them for their express permission
    - do not post images of peoples results at conferences
    - do not post photos of you interfering with animals for which we do not have ethics or scientific licenses to work with.

Social Media

I am active on twitter and use it for science communication. Ideally everyone would have a twitter account so we can tag each other and promote each other's work. It's also great for getting answers to tricky questions and finding potential collaborators, not to mention finding lots of job adds. The lab has a twitter account, but I am less active on them. If anyone wants to take on the lab twitter account that job is usually open for involvement.

Traditional Media

I encourage everyone to contact the university's media team to promote your work after articles are accepted for publication. I also encourage you to speak to the media about your science. I can be scary doing live media, but generally things are prerecorded or printed and so you have a bit more control over the content. Media training is great, and if you get the chance, sign up. I also have many contacts with media experience that we can tap into if needed.

A few handy things to know are:

- You should ask to see the piece before it's published (they might not say yes)
- You should ask to see your quotes before they are published (they might not say yes)
- Relax. They always get something wrong, and everyone in science knows it.
- It can be humiliating, I was once described as the 'alpine fairy' in a newspaper article, but it usually isn't.

Moving on

It is a bitter/sweet part of science that people rarely stay in one place for long. It's therefore inevitable that you'll move on to bigger and better things. Transitioning between employers needs to be handled thoughtfully so that everyone is on the same page. Here's what needs doing:

General

- All keys are returned.
- All equipment is returned.

Specimens

- All specimens are clearly labelled and safely stored.
- There is a metadata file associated with the specimens, which notes the details of their collection (location, time, method) and the labelling system.
- Kate is aware of the location of all specimens.

Care Sheets

- Your rearing and/or experimental protocols are documented. This applies if you developed new ways of working with something, or if you are working with a new organism. Include feeding schedules, environmental conditions, type of food, any food recipes, where the source organisms were collected/purchased from, and any additional info that might be important should someone else need to rear or work with your organisms.

Data

- All raw data (e.g. photos, videos, lab notebooks) and processed data have been made available.
- All data have associated metadata, which details the structure of the corresponding data.

Publications

- There is a plan going forward for any unpublished work in terms of who will be leading it and expected time frames. It is up to you to stay involved in projects that are incomplete at the time you move to your next post.
- It's also important to gauge your new employers' expectations on whether or not they are happy for you to continue working on pre-existing projects. This will vary among people so it's good to know up front.

Presentations, Posters, Theses

- Final versions of all posters, presentation, and theses are available.

Contact

- Please provide a non-university email so we can stay in touch, especially about publications!