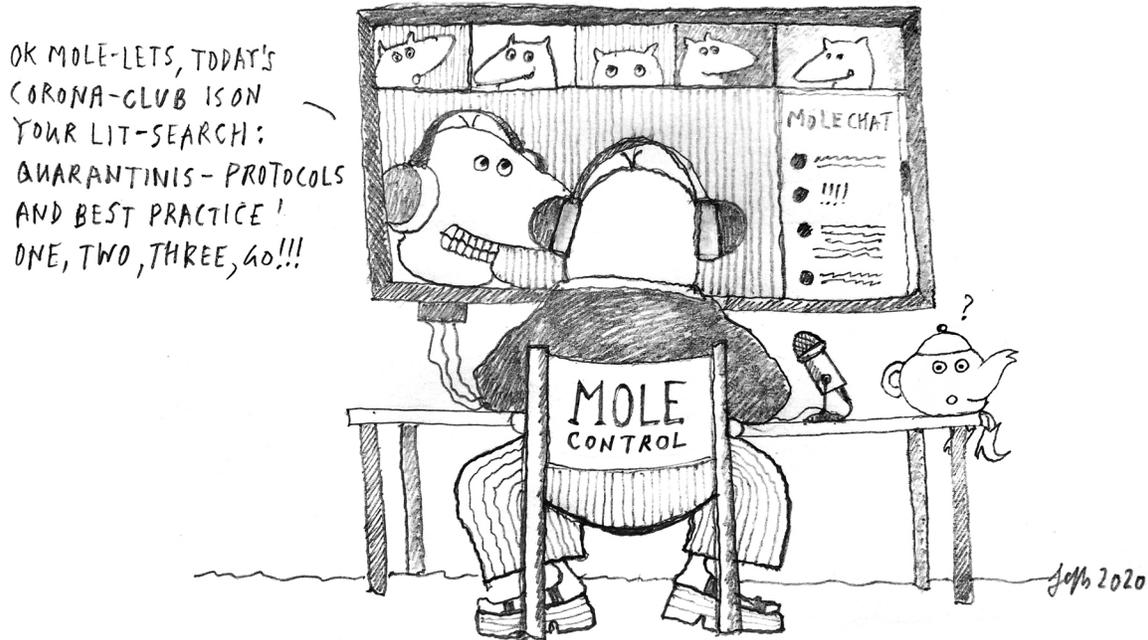


## STICKY WICKET

## Corona II – eclipse

Mole



In 2018, lovely Ms. Mole and I drove for several hours and stayed with my cousin, Prof. Bear, and his family in their lovely den. The next morning, we got up, chilled our lovely champagne, and waited for the lovely, perfect, total eclipse of the sun. For about a minute we saw a perfect corona (complete with Baily's beads) and toasted this rare event. Then, a sliver of sunlight appeared, the birds began singing, and the streetlights extinguished, and it was all over. Wouldn't have missed it. Lovely.

Of course, I'm telling this story because it is week two of our eclipse, and we don't actually know when that sliver of light will appear to set the birds singing. Of course, the birds are still singing; I mean metaphorical birds. Or maybe the fat lady. We're all waiting for the fat lady to sing. "It ain't over 'til the fat lady sings," is something we say over here, this side of the pond. I think it comes from Brunhilde's final, twenty minute scene at the end of *Götterdämmerung*, which, of course, is the end of the world. Hey, I've got time, maybe I'll listen to the whole thing. No, probably not. Sorry, I've forgotten what we were talking about.

Right, of course, our metaphorical total eclipse. I'm sitting outside, on this balmy, glorious day, transitioning from paralyzing dread to spurts of furious activity to thoughts of 'quaratinis' (I just heard about those, need to make one), and now, of course, I'm talking to you.

Last time, we were talking about things we can do, and I promised to make a list. It is only a partial one, but it's a start. I think we'll have time to think about more. But for now, here it is, *Mole's Guide for Scientists Who are Sitting at Home*.

1. *Manage your stress*. This is a very stressful time, of course. We are in a pandemic that will likely kill a significant part of the population. The world's economy is in free fall, likely taking us into

a global depression. We (at least those of us in this country, but some of you in others as well) are experiencing the leadership of a clueless government that seems powerless to get ahead of this crisis, and distributing misinformation like rolls of paper towels after a hurricane. Sorry, I know that if you weren't stressed before, you are stressed now. Sorry. But here's the thing: we can manage stress. Take a walk. Do some work. Don't shelter in place *mentally*. That said, a *little* stress is actually good for you. Once, a long time ago, I toured an animal park dedicated to the preservation, breeding, and reintroduction of endangered species back into the wild. They had been struggling with a badly endangered antelope that simply would not breed in captivity, and changed their strategy: the large, endangered cats at the park were moved to *upwind* of the antelope herd, and breeding suddenly started in earnest. Since then, these antelopes have been reintroduced to their environment. I'm not saying that the virus outbreak is the key to reversing the declining trend in birth rates in much of the developed world (although, come to think of it, that may well be an unforeseen consequence. We'll probably have a Corona Generation). Nor am I saying that this is the main way to handle stress (unless, of course, you are Prof. IbeX, who is very nice). I'm saying that we need to do what works for us to reduce our stress levels to those that are useful rather than destructive. Practice breathing. Do mindfulness exercises. Try yoga. Take up juggling (start with rolled up socks). Knit. Drink to excess (works for me). But manage. If you do, you can be useful.

2. *Avoid distractions*. It is so easy to be completely distracted at this time. And distraction results in lost time, which elevates stress, which leads to more distraction. So, ration your intake of news media. Limit your texting, tweeting, FaceBoodling. Of course, you'll still be distracted, but if we try to reduce our levels of

distraction, we will find that we can be useful. We'll get to that. Oh, and whatever you do, don't watch Contagion, Outbreak, The Andromeda Strain, The Omega Man, or 28 Days Later. In fact, avoid all infection and zombie movies. Watch something funny. Or watch Casablanca; I mean, you don't get tougher than Humphrey B when times are bad. *After* you get something useful done.

3. *Define your 'wolves.'* Many of us live by the mandate to 'feed the nearest wolf.' If you, like me, are a small mammal, you know the practical value of this when the Wolf family visits for lunch and you are on the menu. But in this case, I am talking about metaphorical wolves (perhaps they eat the metaphorical birds we met above?). These are the many things that come at us with various levels of urgency, and we tend to multi-task them in the order of priority, often at the expense of the concentration needed to do them properly. And as we do this, we relegate so many of the essential things we *should* be doing to be successful scientists. Like reading the literature, thinking about important questions, and trying to understand what our experimental results mean. And somehow, this circling pack of wolves keeps coming, albeit perhaps more virtually now. So, here's the thing: set your own priorities. If there is a stack of papers you've been meaning to read, make it the nearest wolf. If you've been meaning to research and think about a question that intrigues you, make it a circling wolf. If you have data that you just haven't been able to get to, another wolf. Try to get one of your favorite wolves fed each day. You'll feel better.

4. *Be an expert.* We are immersed in information and misinformation about this pandemic, but you have an advantage that is not available to most of the public. You know how to read and evaluate the literature. Even if you aren't versed in virology, epidemiology, immunology, and the like, you are better off than most. Put this subject on your reading list, and make it one of your wolves (see #3). (I have to stress here that I am not referring to Prof. Wolf, who is my go-to expert on viral infection. I apologize for the categorization of wolves as something threatening. That said, Prof. Wolf does have rather large teeth. Sorry, digressing.) And as you gain informed knowledge, take the time to communicate it in whatever ways you tend to prefer, be it by text, tweet, FaceBoodle, Instascam, or whatever. And don't just make statements, which will wash away in the flood of 'information,' that is out there; say what it is that makes you feel that you are correct in your assertions. I know I said to avoid being distracted by such forays into the e-verse, but provided you do not spend an extra hour perusing videos of talking dogs, this can be a useful thing to do. Of course, if you *are* an expert in virology, epidemiology, immunology, and the like, please stop reading this and please, please get back to working on it. We very much thank you for your service.

5. *Support your colleagues.* We scientists are, by and large, social creatures. Sure, we hide away in our laboratories doing arcane things with cells and machines, but we generally can't wait to get out and share what we found. We thrive on collaboration. Hopefully, you are having lab journal clubs and lab meetings online; I certainly am. And we have considered what to do when there are no new results to discuss: spend the time brainstorming your project and ideas, as though you were presenting a job interview/chalk talk. Do the same thing with collaborators and colleagues; we have an unusual opportunity to talk 'what if' science at length. But I also feel that we need to support each other in additional ways. For example, I assume that many of you, like me, are reviewing a lot of papers. As I was doing just that, I realized that the usual review ('you need to address the following concerns experimentally') will mean that, unless the authors are somehow in a fully functioning laboratory, the revision will not even begin until all of this is over (and, despite all pessimism, we have to know that it will be over at some point, even if it isn't soon). So, the entire process of review has changed for me. Assuming that most of the experiments are well performed, and assuming that the conclusions are interesting and supported by the data, the things I usually want to ask for just don't seem all that important. The authors can simply satisfy me by discussing the point/caveat/concern, rather than spending weeks performing the experiments. (That said, it has been the case that the data simply did not support the conclusions, and the conclusions that *could* be supported by the available data were not especially interesting. In such instances, I feel I still have to say so.) But this idea, that maybe it isn't so important to *always* do more experiments following the first review might be a breath of fresh, virus-free air. It would be so nice if this were something good that came from something so terrible. Poot-tee-weet?

I really didn't want to end my list with the word, 'terrible.' So, I followed Kurt Vonnegut's guidance in his wonderful 'Slaughterhouse Five,' that birds say all there is to say about terrible things. And, like him, I ended my little list with the same onomatopoeitic syllables. In my case, quoting metaphorical birds, of course.

I am certainly not comparing my list to a masterpiece of literature; that would not go well at all. I don't think it would even compare to Kilgore Trout's 'Venus on the Half Shell,' which, of course, does not exist. (Kurt Vonnegut made it up. That said, Philip José Farmer, writing as Kilgore Trout, did actually write one, but for me, it doesn't count. Actually, it is pretty bad. Not as bad as this column, perhaps, but pretty bad. So there. It doesn't exist.) I'm wildly veering off track, as usual, so perhaps it's time for some actual work. Now, where did I put that 'tea?' See you next week. Stay safe, stay sane, stay tuned.