

The Habits of Successful Ecologists: Time Management



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Why manage your time?

At some point you have to write a thesis, a paper, or at the very least stop watching repeats of *Little Britain* and get out of bed. Those of us who are not PhD students might also have other items on our plates that require attention. How can we make the most of our work hours, so that we can enjoy the rest of our lives far removed from the cold sweat of fear of unfinished analyses? What is the secret to managing your time effectively?

There are a number of time management systems that are pushed very strongly and can take over your life if you let them (Allen & Schwartz, 2011). What is useful for different people will vary and the research on time management systems is still inconclusive (Claessens *et al.* 2007). However, the point is not to make getting things done a chore in itself and to use these tools as aids.

There are a number of basic principles and ideas. Fundamental to these is that each task has a priority attached to it. Many tasks that we carry out each day are so deeply ingrained that we do not need a list to remind us to do them. Eating and brushing our teeth are tasks that most people can manage and are essential to our health and wellbeing. However, it seems that other important tasks are not so easily assigned a priority, either because the benefits are a long way off, or because they are in themselves addictive. For example, smoking has well-documented highly deleterious effects on health and survival; but these effects are usually far enough removed from the actual act of smoking, combined with its addictive nature, that it is hard to prioritise giving up. Similarly, handing in a thesis is (for a while) several years away, and the benefit of writing a page now is small. If humans are as inherently poor at assigning priorities to tasks as we are at identifying risk, then we need to take matters into our own hands.

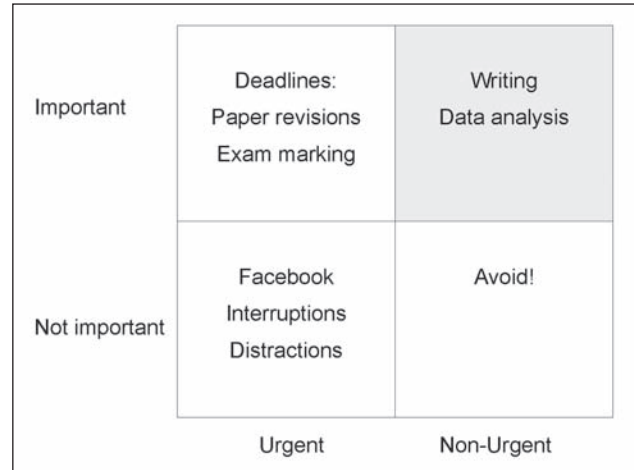


Figure 1. Examples of prioritising scientific activities using an Eisenhower matrix. Assign each task to one of the four boxes. Important non-urgent tasks are those that should consume most of our time.

The first step is to prioritise objectively all the tasks that we do. A popular method for doing this is the Eisenhower square, reputedly used by the eponymous president (Figure 1). Important activities are those that lead to one's own goals and longer-term priorities (such as a thesis or paper). Urgent activities are those that appear to require immediate attention and are often related to someone else's goals (such as replying to email as soon as it arrives). Important and not urgent activities are where authors suggest we should be spending a good portion of our work time, completing tasks before they move into the important and urgent box when the deadline looms. However, these important tasks are often sidelined or distracted by urgent or non-important activities.

Monitoring your work patterns

How long do you spend on Facebook every day? Is it too long, or not long enough? The first step towards understanding how we work is to monitor it. And as scientists, we also need baseline data in order to compare any changes. Once we know how we actually divide our day up, we will be in a much better position to decide how we would like to do so.

Several software programs can be run in the background on your desktop computer, logging various types of activity, from specific webpages you visit to the time you spend on all the programs you use (Figure 2). Many of the commercial packages have free versions that can be used for long enough to get a thorough documentation of your work habits. For the seriously web-addicted, there is also software that will disconnect you from the internet for a specified time.

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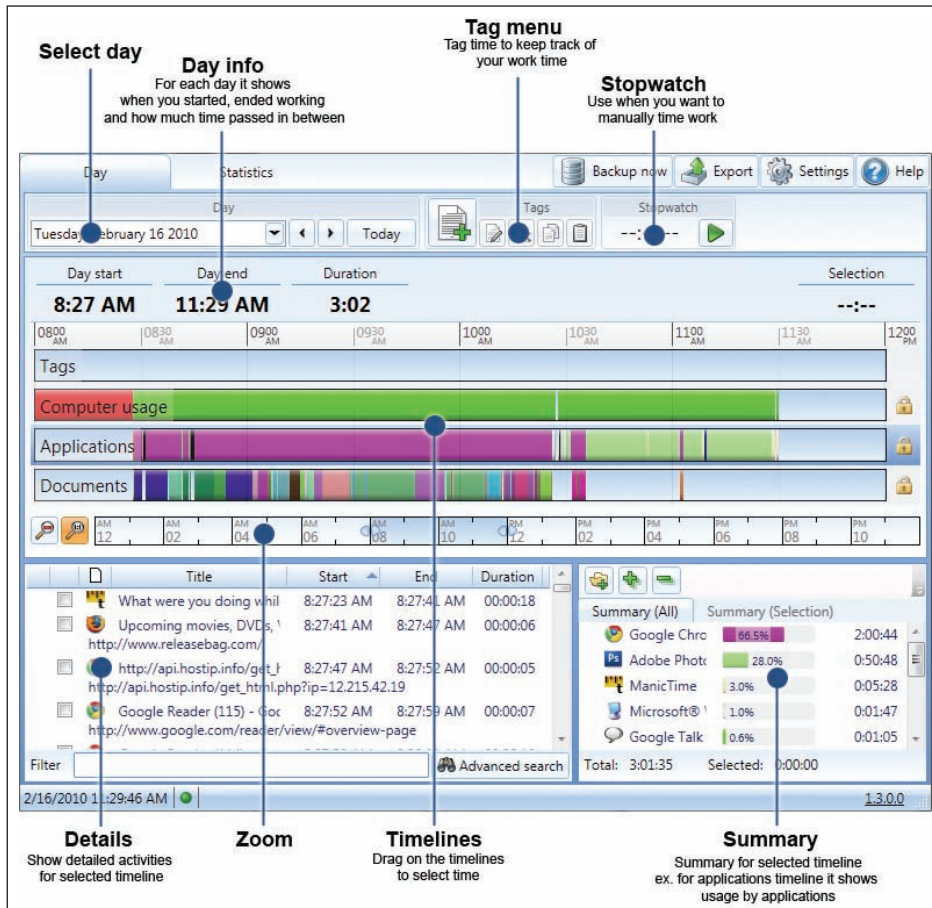


Figure 2. Example time management software GUI. Computer usage, including software and webpages can all be recorded in the background while you are 'working'.

Email hell

One of the most pernicious offenders in terms of distraction and time-wasting is email. Before you carry on reading this paragraph, turn off the 'new email' notification of your inbox! No beeps, no pop-ups... go on!

Email arrives at all hours of the day and night (Figure 3, left). It is very tempting to answer straight away (Figure 3, right). However, there is good evidence that even female humans are not as good at multi-tasking as we might think (e.g. Weissman *et al.* 2006). Working without distractions is much more efficient, and it can take over a minute for full attention to return to the main task once you have been distracted (Jackson *et al.* 2001). For this reason, many productivity gurus recommend not even checking email until at least mid-morning, after you have carried out the most important task of the day. If you can, restrict email sessions to specific times of day; maybe only once before lunch and once in the late afternoon. Furthermore, make sure that you take action on emails when you do read them – reading and then waiting to

reply till later wastes more time and means that you are still thinking about the email.

Hello email

Time management is difficult because we are easily duped by short-term random rewards (why else do you keep checking your email?!) that make us feel like we are being productive. Learning to prioritise is difficult. For this reason it can be useful to structure your day and working environment to encourage efficient methods of working. We will come to these next time.

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The Habits of Successful Ecologists: Time Management

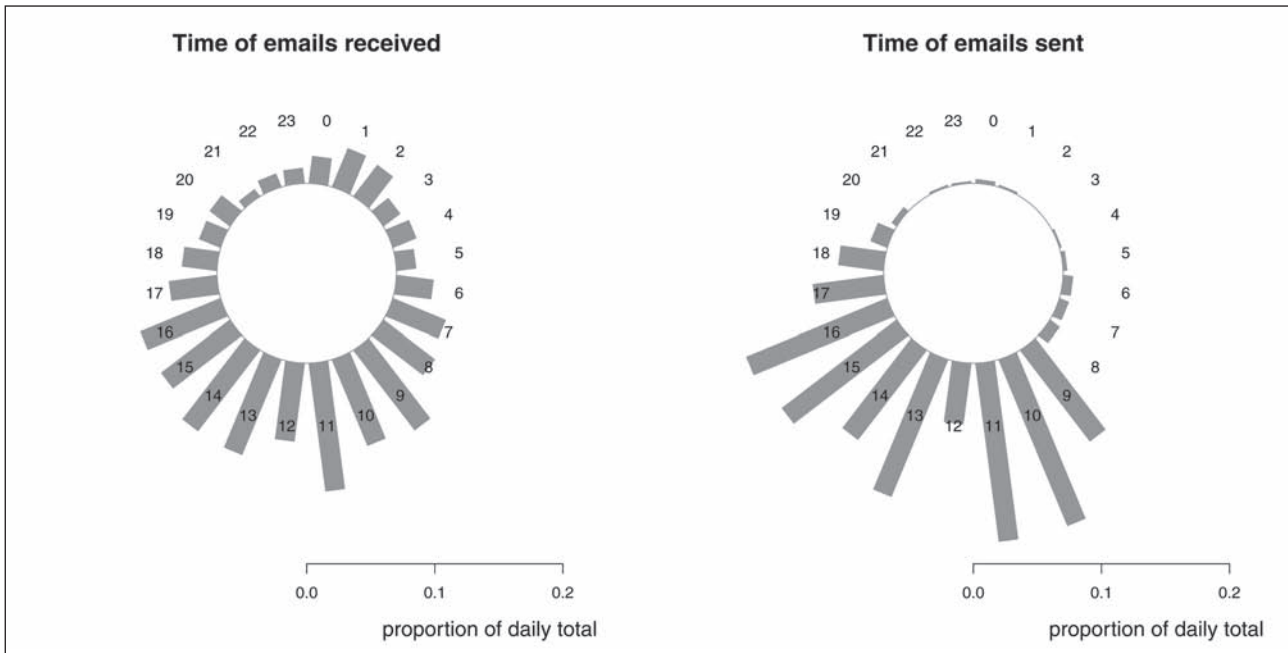


Figure 3. Proportion of daily email received (left) and sent (right) by the author over a six month period in 2010. You can tell when he stopped for lunch.

Prolific Profile #3: Spencer C.H. Barrett



Spencer Barrett

Spencer Barrett is a University Professor and Canada Research Chair in the Department of Ecology & Evolutionary Biology, University of Toronto, Canada. The research in his laboratory focuses on understanding the mechanisms responsible for the evolution of plant mating strategies and their genetic and evolutionary consequences. He also works on the genetics of invasive species, the role of local adaptation in colonization,

and plant barcoding and its applications. Studies involve diverse groups, with a major focus on *Eichhornia*, *Lythrum*, *Rumex* and *Sagittaria*. His work integrates different approaches including theory, comparative biology, field experiments, genomics, and quantitative, ecological and evolutionary genetics. Research projects are currently being conducted in Argentina, Chile, China, New Zealand, South Africa and North America. To 2010 he has authored 273 publications (Figure 4).

BES: How soon in your career did you author your first publication?

SCHB: First paper published as a graduate student in 1975 (Ph. D. thesis conferred 1977).

BES: How important do you think it is for young academics to publish early and often?

SCHB: I believe it is absolutely crucial for young scientists to publish early in their career if they are interested in obtaining an academic position. Unfortunately, my experience has been that many supervisors do not seem to appreciate this to the extent that they should.

BES: How do you maintain a good publication record while pursuing major research projects that may take years to complete?

SCHB: Have diverse projects on the go with different maturation dates.

The Habits of Successful Ecologists: Time Management

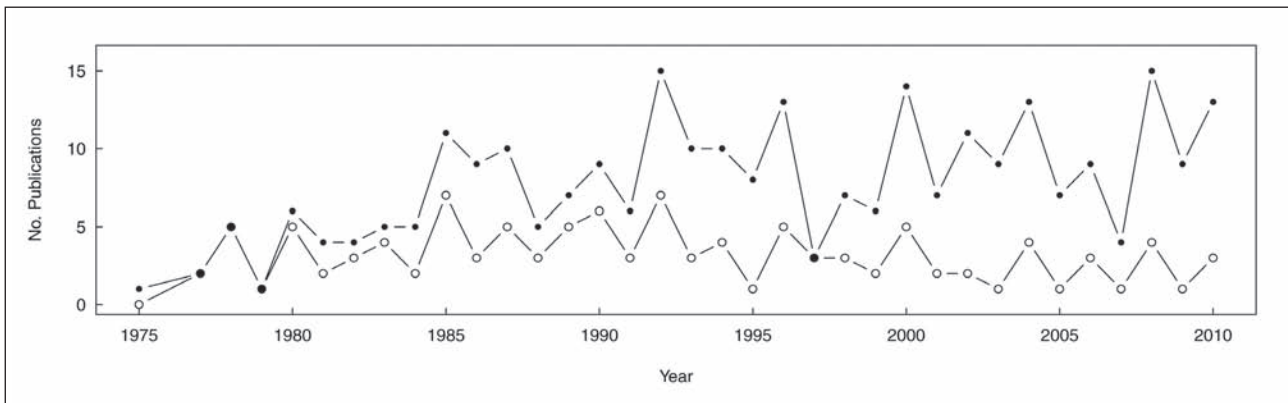
BES: How important are collaborations in maximising research efficiency, and does this change as one gets further along in one's career?

SCHB: It's important early on in a career to establish yourself as a young leader in a field and not to jump at any collaboration that comes along as this can diffuse focus. However, collaborations are very important over the

long term as in ecology and evolution no single person can possibly be an expert on all of the possible sources of information relevant to problem solving.

BES: What motivates you in your work?

SCHB: A love of natural history and problem solving.



Total publications (filled circles) and first-author publications (open circles) per year by Spencer Barrett.