

# Finding good postdocs – an EEB academic-track perspective

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## Goals for postdoc-ing

You want a position that would give you growth as a scientist, but also involve projects that have a reasonable amount of work. For example, it is good to find a position that expands (a) your toolkit or (b) the systems/concepts you study. Learning both new methods and a new system would be kind of hard, as would setting up a new field system or a huge experiment. Nowadays it is not rare for people seeking R1 jobs to postdoc >2 years. And new faculty hires have on average been postdocs for 4-5 years (see Jeremy Fox's blog post on DynamicEcology). So some of your postdoc papers may end up on your job market CV.

Besides research, I also want to set up a couple expectations up front of where your time will go. Averaging over my 4 years of postdocing, I'd say expect

1. ~15% of your time will go to publishing your PhD (up to 30-40% in year 1)
2. ~20% of your time will go to applying / interviewing for tenure-track jobs (up to 40% in years 2-4, but make sure to start writing application statements in year 1).
3. ~5% of your time will go to (a) If seeking a R1 job, coming up with new research ideas and grant proposals or (b) If seeking a job at a teaching-oriented school, teaching a course and developing materials
4. ~5% of your time will go to DEI activities (ideally 1-2 significant things)

So, I spent ~45% of my time doing things not related to my postdoc. Though they may take < 1 year of work total, research projects stretch over 2-3 years. So you will be working on your PhD and figuring out next career steps while paid from your postdoc, and in your next postdoc / TT job you will be completing/publishing postdoc research. Note: I'd expect (guess) items 2-4 to take substantially less time if I was planning on a non-academic job.

Postdocs are a stepping stone to TT jobs. For R1 jobs, this is the stage where you go from knowing how to write a research paper towards learning how to write a research grant of 3-4 papers. So as a postdoc you'll gradually be filling in the several check-boxes required for TT jobs. Having each is much more important than having a ton of one.

1. a consistent theme to your research - tackling a broad question in a convincing way
2. 5-10 papers published or in the pipeline (bioRxiv etc are your friends)
3. a few papers in broad journals (eg Ecology; PNAS/Science help a bit but not expected)
4. some teaching experience [R1 jobs = several TA-level activities; teaching jobs = being an instructor of record]
5. Being a PI / co-PI on some grants / postdoc fellowships [especially for R1 jobs]
6. Activities contributing to DEI, and hopefully a clear, focused plan on how you will continue this as faculty. The latter is also helpful because as faculty you will initially be focused on tenure and teaching, so you may not have much time to think about this at first.

## Applying for postdocs

Think of active people in your field you'd like to work with and draft up a grant/fellowship idea (in a few sentences) you might be able to collaborate on. Mention why you're excited – things you want to learn, skills you might bring. However, expect to do this well in advance of finishing (6-12 months) as funding, grants, and fellowships take a while to procure.

Most postdocs however are advertised (eg on listservs, ECOLOG for ecology) come from grants people already have – some of these are great opportunities with substantial freedom. The only challenge is they want people to start in a couple months. So it's best to leave 6-12 months of flexibility towards the end of your PhD – so you can wait around for something good to come up, and can finish a little early or late. Also, for both postdocs and jobs it is a good idea to subscribe to advertisements more than a year before you finish to get some perspective – that way you can start to rank how good a given opportunity is.

Social aspects: Postdocs at times are an emotional roller coaster. Do try to have one of (a) a partner, (b) stay near a place you know – or a research-intensive place with many postdocs coming and going, or (c) have lots of colleagues in your field \*who come to the office\* or a bustling lab. A note on postdoc-ing abroad (eg Canada): R1 universities outside the US may have much less turnover in people. Getting a PhD, a postdoc, and a job in one school is much more common in Europe. So outside of big cities, everyone around you \*may\* already have their friend groups largely filled since high school.

More materials and resources here: <http://www.des.ucdavis.edu/faculty/baskett/links.html>

## Once you have an offer – vetting and red flags

It is (or should be) the norm for postdoc advisors to be actively supportive of both a flexible approach to the research project and to your career. I know of very few outright hostile PIs in EEB, but even an advisor who is absent/ambivalent puts you at a disadvantage.

Postdocs with <2 years of funding and/or with very detailed+rigid goals and methods: unless they fit you perfectly, these may not give you much academic freedom to grow.

Postdocs where you will run a field study / experiment: Make sure you'll have (1) people to help you and (2) additional existing data you are excited to analyze. Spending 2 years collecting data may leave you with no papers published or even drafted.

Mid- to late-career PIs: a lab with very few recent students or postdocs. They may not have an up-to-date understanding of what to expect from – and provide to – postdocs. Another potential red flag is if a mid- to late-career PI does basic research, has had many students / postdocs, but very few of them stayed in academia. This is one common characteristic of some troublesome advisors I know of, so in this case talk to lots of lab alumni.

Talk at length with the PI and many current and recent lab members. Ask the basics of lab culture, how often the lab does social activities (hopefully >1-2/yr, and hopefully they remember the last one quickly), how accessible the PI is (do they come to work? How fast do they respond to emails? to drafts??), mentoring style (hands on vs off). How many papers

do they expect postdocs to write? (1.5/yr is reasonable). Are they ok with you spending some time applying to faculty jobs? (see above - if they're not I feel its a red flag). Then run through and ask about how postdocs can achieve the things needed for a job (points i-vi listed above in section A). For example, some universities have no plan in place for postdocs to be an instructor; in Canada postdocs can't co-PI NSERC [Canada's NSF] grants. If these challenges exist, what's the PI's plan to overcome them?

## **After you get a postdoc**

First, see section A above. Second, Take it easy! Your PhD and postdoc advisers did the same transition so (if they're any good as mentors) they'll understand that getting going takes time. Third, a couple months before your postdoc starts, take some times to explore the particular things you want to do (maybe read a couple papers, met with your postdoc advisor). This gets you thinking in advance and makes it easier to 'hit the ground running'.

A final personal note: in academia we take a pay cut in order to work on questions we love and work with people we love. If either is not true, change something.