

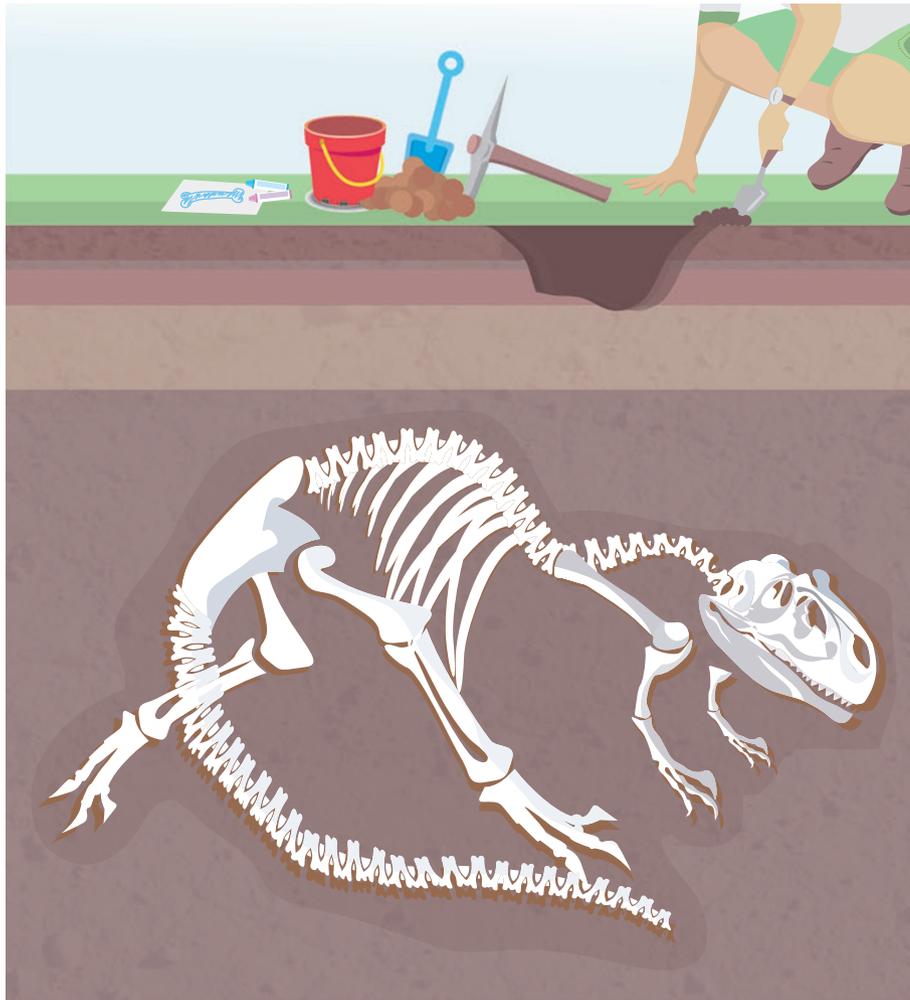
CAREERS

SALARY Report confirms broad gender pay disparity in United States **p.577**

GRADUATE EDUCATION Institutions globally aim to support interdisciplinarity **p.577**

NATUREJOBS For the latest career listings and advice www.naturejobs.com

ILLUSTRATION BY CLAIRE WELSH/NATURE; FOSSIL ILLUSTRATION BY ARTA/SHUTTERSTOCK



WORK-LIFE BALANCE

Kid-friendly digs

How to blend fieldwork and far-flung travel with raising little people.

BY KENDALL POWELL

Before heading off to hunt for fossils in the Canadian High Arctic for a month every summer, Jaelyn Eberle buys and freezes pre-made dinners for her husband and three boys — along with other preparations to make for an easier life. The palaeontologist's work takes her from the University of

Colorado Boulder to an off-the-grid spot for four to five weeks, and her husband works long hours and has a round-trip commute of nearly two hours for his job in Denver. So they hire two babysitters who split the work days, book the kids — aged 14, 7 and 5 — into summer camps and swim lessons and put Eberle's retired-nurse mother in Canada on call for emergencies.

Like many early- and mid-career researchers, Eberle has to balance family responsibilities with the demands of her research, and that requires advance planning and dispassionate cost-benefit analyses. Research schedules rarely fit neatly into day-care hours, but field research — be it fossil hunting in the Arctic Circle or testing medical devices in Malawi — brings the extra challenge of long stretches of solo parenting and the need to modify work hours or secure extra, and usually expensive, child care.

Veteran field researchers say that it helps inestimably to have a supportive, equal-parenting partner who is willing to shoulder the extra load at such moments. But sometimes, it makes sense to bring the family along. Whatever approach or combination of approaches is adopted, scientists should remember to factor in family face time, say those who have learned the ropes. And they will need to develop a strategy that achieves both personal and professional goals (see 'Tips from parents').

INNOVATIVE SOLUTIONS

Selina Heppell, an ecologist at Oregon State University in Corvallis, crosses the globe to study the dynamics of endangered species. On a solo trip to Japan in 2000, her then-2-month-old son, Dylan, slept in the hotel's chest of drawers.

"Travelling with a little baby is not that hard. It's when they start running around that it gets problematic," she says. But getting Dylan, now aged 14, used to travelling early in his life made him more adaptable later on, she says.

Heppell and her researcher husband made a deliberate decision to have one child, knowing that their careers involved numerous trips to places such as Croatia, Iceland and Peru. "Having one kid and two parents means you can be quite mobile," she says.

They relied on hotel babysitting services and travelled light whenever possible — forgoing a portable crib, for example, and buying cheap, lightweight strollers that can be donated to a local mother when leaving the country.

Carrie Masiello, a geochemist at Rice University in Houston, Texas, says that when her son Owen was young, she and her husband, a biochemist at Rice, travelled less often for their work. But they did wonder whether they should have been doing more while working towards tenure. "Especially when you are a junior scientist, you have to get out and let people see your work," she says. Academia should find better ways to help pre-tenure faculty ►

► parents to be more mobile, Masiello adds.

And when they both had to travel out of town, they took advantage of Rice's contract with a national back-up day-care provider, which let them drop off Owen at centres near to their conferences. And sometimes, colleagues can help each other out. Heppell says that at times she travels with multiple families and each researcher takes a turn babysitting three or four kids for a day. "It takes a lab to raise a child," she says.

Researchers also need to consider their child's age and health when travel would require heavy immunizations or risk exposure to diseases such as malaria, typhoid or dengue. Heppell recommends that people check with their doctor. She decided that Malaysia was too risky for a 2-year-old Dylan — because of both the risk of infectious diseases and because there had been a terrorist attack in nearby Bali — but that by age 10, he could handle Peru and the necessary medications.

Short visits to other countries are one thing; remote fieldwork presents added challenges: camping in rustic or rough conditions, unreachable by mobile phone or e-mail and at the mercy of the local wildlife. Still, in some cases, it is feasible to bring the kids along. Masiello, for instance, says that her postdoctoral adviser chose a site in rural Canada for their soil-sampling trips in part because there was a day camp nearby where her kids could be dropped off each morning.

Likewise, Suzanne Anderson, an Earth scientist at Colorado's Institute of Arctic and

Alpine Research in Boulder, has at times selected field sites where her twin daughters and geologist husband could be nearby, so family life often overlapped with work. "We've always been ones who don't know where the boundaries are between home and work because my husband is in the same field and we often work together," she says.

That teamwork became indispensable when she won a grant to study glacier-outburst floods when she was heavily pregnant, because her husband was able to collect the data for her. Then, the following summer, when the twins were 9 months old, the entire family including her parents trekked to remote Alaska for a month. They stayed in a rustic cabin, borrowing a portable cot and high chair from locals. It was doable, she says, because her site was a 10-minute walk away and the area was free of bears.

She says that her spouse's equitable, even-handed approach to balancing fieldwork and child care has made her field excursions possible. "It really depended on having this spouse who was totally into it," she says. "The most important thing for me has been having a partner who is absolutely committed to our family and to us both having careers."

The couple returned to the Alaskan site when the girls were about 5, again with help from grandparents and this time a nanny as well. But they also turned down joint field opportunities if they did not seem safe or practical with children in tow. Short scouting trips to get preliminary data on snow melt or soil samples were useful for making those evaluations, she says. Anderson says that she has also been able to find field projects close by that still allow her to function as a chauffeur for her teens.

FIND A WAY

Whereas the Andersons achieve the right mix of field travel and family life through blurry work-life boundaries, Rebecca Richards-Kortum, a bioengineer at Rice, uses strict rules to combine her career with raising her six children aged from 4 to 22.

For example, she has a 'two weeks or less' rule for travel to Malawi, where she tests life-saving medical devices for newborns. It was a rule informed by experience: on hearing the news that one field trip was going to be extended by four days, her then-4-year-old daughter — who was at home with dad — had a complete meltdown. A parent's prolonged absence from home can leave small children — and spouses — with frayed nerves.

Now, she does one 10–14-day trip a year, working 15-hour days to maximize her research, and her husband, also a tenured researcher at Rice, takes over her parenting responsibilities. And during normal work weeks, the couple uses day care and after-school programmes instead of babysitters to help set limits on time spent at work.



MARILYN ETTER

Jaelyn Eberle sometimes takes her son Quin on field trips in Colorado.

"It's good insurance that I don't take too much advantage of always working late," she says. "The day-care centre closing is a good boundary." She also schedules her work trips to not clash with birthdays, an important family tradition. "Understand where your boundaries are — and figure out a way to stick to them," she advises.

Eberle, for her part, uses uber-organization to help to keep family life on track: she plans her Arctic trips almost a year in advance. And because her husband's position at an energy company often requires more-than-40-hour work weeks, the couple uses an agency to find experienced babysitters that meet their needs when she is away. The service also steps in to find a replacement quickly should one be needed. "We wanted someone we didn't have any concerns about," she says. Eberle notes that this arrangement is financially possible for her family only because it is not necessary year-round.

Her work on 50-million-year-old rhino-like brontothere fossils has to be done on-site and in-person. But Tom Painter, a snow hydrologist at the Jet Propulsion Laboratory in Pasadena, California, says that researchers should carefully consider whether they actually need to attend a remote meeting.

His own research leads to various engagements with international scientists and federal, state and local water organizations. But as a father of two boys, he is wary of getting "carried off the cliff of busyness". So he has a strong commitment to say no to field travel and off-site meetings whenever he can. He uses Google Hangouts or Skype to give presentations whenever feasible. He also does the reverse, using

WAYS TO COPE

Tips from parents

- See the bright side of travelling with children. Parents with kids in tow often get to go to the front of a line and many areas of the world are child-friendly.
- Buy or borrow *The Happiest Baby on the Block* video (www.happiestbaby.com) for techniques that work to calm a screaming baby.
- Order groceries online and have them delivered when someone is home.
- Share videos or pictures of your travels with young children, so that they can begin to understand why you are gone.
- Investigate and make use of family-friendly workplace policies, including family leave and automatic tenure-clock stoppages for the birth or adoption of a child, and back-up day-care services.
- Apply for university mini-grants available to faculty to cover the extra child-care expenses related to travel.
- During long solo-parenting stretches, take frequent walks to diffuse stress and frustration. **K.P.**



Suzanne Anderson (far right) sometimes mixes family and research on trips to study glacier outbursts.

video chats to connect with his boys while away — but it is not the same as being there in person. “We can’t shoot baskets,” he says, “or kick the soccer ball or wrestle.”

FAMILY CAPITAL

Single parents, and those who are effectively single parents because of long-distance relationships, face additional struggles. Jane Willenbring, an Earth scientist at the University of Pennsylvania in Philadelphia, travels to the far reaches of Antarctica, Puerto Rico and Turkey for her research on erosion and long-term climate change, and her husband is a political scientist on the opposite coast, at Stanford University in Palo Alto, California.

“I put in so much time solo parenting that I actually feel almost zero guilt,” she says about dropping off her almost-2-year-old daughter in Palo Alto so that she can do her fieldwork. She will even add a northern Californian project to her portfolio because it would be an easy side trip for her to drop off her daughter.

Because of her family’s situation, Willenbring’s ability to coordinate site visits with collaborators is restricted by her husband’s schedule and even by airline routes. She says that she must be frank with colleagues about her child-care and family-life requirements, and adds that it is ultimately for the best. “People are usually more accommodating. Or, if not, then you know you don’t want to work with them,” she says.

Alain Plante, one of Willenbring’s colleagues, says that her bi-coastal situation lets her stockpile what he calls “family capital”. He keeps careful track of his own levels, too.

“Every hour that I take away from my family, I feel like I have to make it up to them,” he says. He recently declined a field trip to

New Jersey because too many other trips had depleted his family capital account.

After spending a month in Mongolia, Plante paid back the capital by taking time off from work. But piggybacking family travel onto work travel can also work well, he says — a lectureship in Paris let his family spend a month with him.

The Google Calendar he shares with his wife, a counselling professor, is a boon for family organization and communication. But it also creates a mutual appreciation for how busy they both are. “When I ask her to cover while I’m gone, that’s not asking a little, that’s asking a lot,” he says.

Spousal support and commitment is key to finding the time and space to get quality research done without disrupting the routines that make for happy children, say field-working parents.

Masiello’s favourite piece of advice to hand down to young researchers is simply, “Marry well.” The key to a household that runs smoothly with minimal stress while a parent is away, she says, is for both partners to have loads of patience with each other and to put their family first. When Owen had the sniffles, they would forgo day care and instead take him to work and let him build forts under their desks. Similarly, Plante hops on a train at 4.30 each afternoon to pick up their two girls because his wife teaches evening classes. “With two people on the tenure track, both of us had to be willing to step in and pick up the pieces,” Masiello says.

And, just as importantly, they try not to keep score. ■

Kendall Powell is a freelance writer in Lafayette, Colorado.

REMUNERATION

Gender gaps

Last year, male scientists in the United States earned 20% more on average than did female scientists, according to a report by the US National Science Foundation in Arlington, Virginia. The *Survey of Doctorate Recipients* looked at salaries across academia, government, industry and the non-profit sector, and found that full-time scientists earn a median of US\$100,000, with men at \$110,000 and women at \$88,000. The disparity is probably because of institutional bias at the earliest career levels, says Janet Bandows Koster, chief executive of the Association for Women in Science in Alexandria, Virginia. She notes that salary differences compound as female scientists advance up the career ladder. Women “are getting a percentage increase based on a smaller amount”, she says.

GRADUATE EDUCATION

Cross-discipline focus

Identifying and providing funding, training and mentoring resources for graduate students who plan to conduct cross-disciplinary research are among the principles that graduate institutions in 14 countries aim to adopt. The US Council of Graduate Schools in Washington DC sponsored an annual summit this month in St John’s, Canada, on promoting best practices in graduate education, focusing on interdisciplinary research. “The questions that will advance human knowledge often lie at the boundaries of current disciplines, so interdisciplinary knowledge and ways of thinking are central to today’s doctoral education,” says council president Suzanne Ortega.

CAREER BREAKS

Wellcome re-entry

The Wellcome Trust, a biomedical-research charity in London, has published an online guide to help researchers return to the bench after career breaks. *Getting Back into Research After a Career Break* details various funding schemes to facilitate the move, and presents case studies of those who have returned to research. It also offers advice to potential returnees on finding mentors and identifying research niches. Shewly Choudhury, the trust’s basic careers portfolio adviser, says that “the guide is there to help people realize that it is possible to come back to the lab, and to offer advice on how to do it”.