



## A LEFT-BRAIN, RIGHT-BRAIN YEAR OF REDISCOVERY

STEVEN R. BEISSINGER

---

Steve Beissinger was born in 1953 in Philadelphia, USA and received a Ph.D. from the University of Michigan and an M.S. and a B.A. from Miami University. He joined the University of California, Berkeley in 1996 after spending eight years as a professor at Yale University. At the faculty at Berkeley he has been a Professor of Ecology and Conservation Biology since 1996; from 2003 until 2013 he held the A. Starker Leopold Chair in Wildlife Biology and he is a research associate of the Museum of Vertebrate Zoology. Steve's professional career has been devoted to producing ecological knowledge that can be used both to conserve biodiversity and to uncover basic processes in behavioral and population ecology that govern how nature works. His current research centers on two of the biggest challenges facing conservation and society – wildlife responses to global change and species' extinctions – with recent work carried out in protected areas and working landscapes in California and Latin America. He has authored over 200 scientific publications and is senior editor of three books, including *Science, Conservation, and National Parks* (2017) and *Population Viability Analysis* (2002). Steve is a Fellow of the American Association for the Advancement of Science (AAAS) and the American Ornithological Society, which awarded him the William Brewster Memorial Award in 2010 for his research on Western Hemisphere birds. – Address: Department of Environmental Science, Policy and Management, University of California, Berkeley, CA 94720-3114. E-mail: [beis@berkeley.edu](mailto:beis@berkeley.edu).

## Reluctantly Following in Footsteps

It was not clear from the start how I would fare in Germany. My father barely escaped the country with his life the day after Kristallnacht, and my grandfather endured weeks in Dachau before his release and eventual emigration to the US. What would I find in Berlin and how would I feel 80 years later? And how would I fare so far away from home and family in a country where I possessed no language skills?

This would not be my usual sabbatical routine. I would not be spending time with “like minds”, deepening skills I already possessed or learning new steps to old songs. Where would I find common ground with photographers and novelists? How would discussions with historians and classicists benefit my work as an ecologist and conservation biologist who mostly studied birds? How would so many different academic disciplines and cultures come together? If my little brother managed a Wiko year, so could I.

Within minutes of arriving at the Wiko, the staff made me feel at home. No matter who was at the reception, no problem was too small. It would be like that all year. Online in minutes. Fed in style. Need a reference, got it tomorrow. No German, no problem. On to the next challenges ...

## A Two-Hour Colloquium?

My first thought was how would I ever survive a two-hour Tuesday Colloquium? As a biologist, I was firmly anchored in the traditions of my field: a 40–45-minute seminar followed by 10–15 minutes of short questions and slightly longer answers. How would we ever fill a whole second hour with questions and discussion?

Well, it wasn't very difficult. So many hands went up in the air at the end of each one-hour talk and so short was the second hour that we rarely ever got to everyone's questions. Fellows engaged, even in topics far from our original disciplines. It was an exciting challenge for me to develop a question in fields far from my own, stretching sides and parts of my brain that had not been used in years. It was a personal challenge that would carry through to my own work in ways I hadn't imagined.

Presenters made the talks and topics alluring and accessible. Who knew that one could speed-write novels? Or that the seas changed from barriers for the movement of ideas to superhighways of culture as technology changed? That credit could fuel poverty? Why constitutions are important? How you can create new sounds for old instruments

using spectral analyses? How to see the invisible in order to make a photograph? That building blocks of cells could act like mobs? Or that the facade could take on so many meanings? The fuss that arose when biologist colleagues applied evolutionary laws to the behavior of a vertebrate, *Homo sapiens*, was a bit surprising but produced a useful tension all year.

### Back to the Roots of Scholarship

Wiko was a time to think again. As a conservation biologist, problems made by others often find me. How to conserve the last 30 Devils Hole pupfish that are found in a single, isolated pool in the bottom of Death Valley? What caused an endangered seabird to decline? How to reduce the risk of extinction to the world's last population of Puerto Rican Parrots? Will climate change in the Tibetan plateau be a tipping point for snow leopards? Can birds and small mammals survive warming and drying in Death Valley? How does a bird that acts like a mouse survive in tiny, accidental wetlands? These are examples of problems that come in my door and go out again with answers and management recommendations, some of which get implemented by agencies and society.

During my Wiko year, I was able to think again about problems of my own making and rediscovered my love for behavior. As part of the Working Group on "Causes and Implications of Adult Sex Ratio Variation in Vertebrates", I dug back into 30 years of data that my students and I have been collecting on a small parrot in Venezuela with a large excess of males in the population. The skewed adult sex ratio, highly stable pair bonds, and a shortage of cavities for nesting has led to the occurrence of two unusual behaviors: (1) *infanticide* by marauding pairs in search of a nest site or a better nest site and by step-parents to facilitate nesting with their new mate; and (2) *adoption* by stepparents, mostly males. Neither infanticide nor adoption is common in nature or in parrotlets. But by painstakingly accumulating 30 years of incidents, I now have an unusually detailed and large set of data on both behaviors.

It has been fun to look at old data again with new eyes and new ideas. My thinking was influenced by my Working Group mates – Tamás Székely, Peter Kappeler, and Michael Jennions – and other ecological and behavioral colleagues, Ferenc Jordán and Jennifer Fewell. Prevailing views predict infanticide to be the rule, rather than adoption, as a way to obtain resources in short supply (mates and nest site) and for stepparents to shorten the time until the next reproductive attempt. Adoption should be favored when

the fitness benefits to the stepparent from the current and following breeding attempts are greater than the future benefits gained from committing infanticide.

My analyses support the idea that marauding parents were often able to take over nest sites after committing infanticide at nests with intact pairs of parents. But I found no fitness advantages for stepparents that adopted offspring. However, long lunch discussions about the mean streets of parrotlet society and on various other topics with colleagues in fields far from my own – Andrea Bohlman, Frédéric Brenner, Tine Destrooper, Shaheen Dill-Riaz, Carey Harrison, Myles Jackson, Cornelia Jöchner, Lena Lavinás, Alberto Posadas, Juha Saarikangas, and Emily Sena – flipped my perspectives to consider the degree that parents were able to control the behavior of stepparents. Several forms of evidence suggest this process could indeed account for the variation among stepparents that adopted and committed infanticide. Adoption in these instances may be in the form of tolerance of offspring rather than providing parental investment.

### Rediscovering Life

Why did everyone else see the fox before I did? All fall I kept hearing about the fox from fellow Fellows. There were tales of enchanting encounters by the Wiko and Villa Walther and of its multi-colored tail. Nary a glimpse, until it was nearly time to return home.

But the birds of Berlin called to me daily, and they were new and alluring. Binoculars in hand, I scanned the lakes as I walked to my office in Villa Jaffé each morning. It began with the coots, a half-dozen chatting away all night long throughout the fall. Great and blue tits, along with a woodpecker or two, ate me out of house and home all winter, and the latter nested in the Wiko garden. Wood pigeons cooed loudly all morning, until a goshawk picked one off in front of us in the Villa Walther yard.

For most of the year, however, it was the mute swans in the lakes by Villa Walther. They became a favorite conversation topic of Fellows. How long would they remain on the lakes? Where would they go as the lakes iced up? How long would they stay away? Would they return to the same lakes? Were they in family groups? How long do they live?

Then, as spring came, it was the dawn chorus, led by virtuoso blackbirds. The night-ingles were the crescendo. We had to wait until late April for them to return from wintering in Africa. But one particularly cooperative male made a home near Floh by the Grunewald S-Bahn and entertained us during a special Fellows evening outing.

## Rediscovering Community

Whether it was Marching for Science, cheering for Hertha BSC, or commiserating about the need for counselling upon re-entry to the real world at the end of our Wiko stay, my fellow Fellows were a treasure. We came together daily as an intellectual and interconnected community and grew through these interactions all year long.

It was that sense of community that enhanced our individual intellectual pursuits. It was nurtured by each Fellow and sustained by the encouraging Wiko staff. I will especially miss this aspect of Wiko.

I found that I was not the only Fellow with ties to the dark past of Germany. About a half-dozen of us shared our unique family histories, and supported each other in explorations of our pasts with the outstanding help of the Wiko library staff.

It was a year of many kinds of discoveries.