Life at the edge: Benthic invertebrates in high altitude Andean streams

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I never thought how digging out mussels in the Amazon could take me so far. That first step into a muddy swamp in 2002 steered a radical shift in my life, from parasite metabolism and tropical diseases to the ecotoxicity of metals in freshwater invertebrates. At that moment, my supervisor had offered me a PhD in molecular and biochemical parasitology at the Prince Leopold Institute of Tropical Medicine in Belgium, but I refused twice. Many times I asked myself if I made the correct decision. Now I can say without doubt I did.

One of the first articles I read on metal ecotoxicology came from a research group in the Netherlands: the AEE. After a first contact and many e-mails, Wim and Michiel helped me writing an article on the Amazon mussels. By the time of publication, they were already my promotor and co-promotor, although the official start of my PhD had to wait. As Harm told me once, I was always in the AEE’s list of ‘pendings’. For five years, Wim, Michiel, Helen and me worked hard on several proposals for funding my studies, making all kind of contacts and administrative procedures, until we finally succeeded in 2008. When I met Wim and Helen for the very first time at Schiphol airport, and later Michiel, I felt like knowing them already for a long time.

I want to express my deep gratitude to Wim Admiraal and Michiel Kraak, who always supported and encouraged me to make this PhD come true, even before knowing each other in person. You made these four years an inspiring and rewarding experience. Wim, I must confess that your ‘oracle’ view of science always surprised me, bringing up an unexpected, subtle twist of reasoning that discovered the originality behind each argument. Once, I found a piece of old Maastricht pottery with a drawing of a toad high up in the Andes (incredible how it got there!), remember? You said it was a symbolic sign of good omen: the metals used for glazing the ceramic were combined with the emergence of aquatic life. You were completely right. Michiel, you were the perfect sparring in the art of polishing each word and line. I enjoyed so much our day to day discussions to make the manuscripts ‘swing’ as a well balanced, unbeatable engine. Your enthusiasm and dedication was always motivating and perfectly complemented by your vast knowledge of the best beers in the world. As in the Elves and the Shoemaker tale, I found every now and then a bottle of a tasty beer on my desk early in the morning. ¡Salud, maestro! That was the start of a parallel PhD, which I continued on my own. I also want to thank Wim and Michiel, because I shared not only science and work with you, but good conversations and life stories, excursions and a valuable time with your families, who received me with warmth. I really appreciate that; you made me feel always at home.

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Queen’s Days, the drinks at East of Eden and many parties with Nigel and Enzo, spiced with Argentinian Fernet and empanadas were impossible to beat! I am forever indebted to you for accepting being my paranymphs, and for helping me with the thesis printing and arrangements for the defence ceremony. You are the best! You are also close to finish your thesis. I wish you lots of success and a promising future. And of course, Nigel, thanks a lot for your help with the cover art. Sascha and Susanita, I’ll miss a lot our refreshing walks around the university, the coffee breaks, and the spontaneous jokes that relaxed the atmosphere in the office. How to forget SETAC conferences, but especially the parties? We still have to repeat that in Amsterdam, remember? Sascha, I wish you and Jeroen lots of success in Australia (with a new Volvo Amazon), and to Susanita and Tibert, an everlasting happiness with your new family. Harm, you saved me from isolation when I discovered the first time that I couldn’t use my laptop because sockets in the Netherlands were round, not flat! You made in a few minutes an adaptor with spare plugs and cables. A unique piece of Dutch engineering, which I still keep. ¡Gracias, señor! Bas, ¡hombre!, the story of your wedding rings keeps moving me. Thanks for your sincere smile and big heart; they cheered me up all the time. Tomás, Kapitán, walking kilometers under the blistering sun of Prague, eating ‘exquisite’ duck and dumplings with Krušovice, and partying with DJ Mucho at the Cross Club till next day was a liberating experience. Miriam, thank you so much for the wonderful paella at your parents place in Barcelona and for introducing me and Marino to your brother Pablo. We had so good time with him after Seville! Thanks for your tips and outspoken view of the PhD, they were very useful. Coen, Paquito, the practicum with the students and the trip to Ardennes were so fun, as much as the traditional BBQs in the park for your birthday. Hope you and Feliza all the best, and good luck with teaching and the MSc. Other AEE members and friends to whom I’m grateful are Jaap (please keep your Porsche and Alfa Romeo), Britt and Juliene (thank you for the good music, buddies!), Jasper (having you an Marielle in Lima after your incredible adventure in Cusco, was great!), Ciska, Vesna and Arie. David and Maarten, you were always so nice to me, making each moment fun, full of jokes and stories around the world, amazing conversations about history and a never ending collection of the best music ever! To my roommates at IJburg, van Anh, Yukie and Xavi, for sharing with me their experiences and culture, and for the delicious spring rolls, sushis and Spanish tortillas. The best in Amsterdam! I also want to express my gratefulness to Mary, Betty, Tanya, María, Mijke, Saskia and Frank, great staff at IBED’s secretariat and management direction, for your permanent help and positive energy. During this time I also met extraordinary people, like Antoine Cleef and Jan Sevink, who always shared with me their vast knowledge and experiences on the Peruvian and South American Andes. Hope we could meet in Peru one day!
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Cuando inicié esta aventura a inicios del 2002, trabajaba en el Laboratorio de Biología Molecular de Tripanosomátidos, en el Instituto de Medicina Tropical ‘Alexander von Humboldt’ de la UPCH. A pesar de tener todas las posibilidades para realizar un doctorado, quería explorar algo diferente, por mí mismo, que me llevara a conocer y sentir el Perú más de cerca. Mi querido amigo y jefe en ese entonces, Jorge Arévalo, me ofreció más de una vez un beca, pero rehusé. A decir verdad, me sentía incómodo de rechazar tan extraordinaria propuesta, pero sabía que debía ser consecuente con el sueño que rondaba en mi cabeza. Jorge, gracias por tu aliento e invalorables consejos, por las inspiradoras charlas con un café, y por tu enorme generosidad.

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entretejían entre chispazos de genialidad, de sorpresa y de sarcasmo, que sazonaban cada conversación en una terraza al borde de un canal. “Habla para que yo te conozca”, decía Sócrates. Y así fue, el puente indestructible de las palabras hizo su trabajo mejor que nunca. No olvidemos los Cuentos de la Vieja Iglesia, serán un éxito rotundo.

Estoy seguro que mi viejo está muy orgulloso de mí. Siempre me lo hizo saber, y así lo siento ahora. No puedo explicar la sorpresa que aún me sacude por su ausencia. No es tristeza, es la sensación de saber que no se verá más a un amigo único y entrañable, al que quisiera hacerle tantas preguntas. Pero bueno, aquí estamos y hay que darle pa’lante nomás. Gracias, viejo, por enseñarme a querer; es la mejor forma de abrir todas las puertas. Madre querida, tu hijo sobrevivió al frío y a la distancia, a un mundo diferente sin tus cuidados. Gracias a ti sé valorar lo que la vida me ha dado, y he aprendido a hacerme de un espíritu tenaz y persistente, aunque claro, no a la velocidad que te gustaría. Es que cada uno marcha a su propio ritmo, y eso es lo importante. A mi hermano y amigo Javier, a Dolly, que siempre me hablaba a su manera, y a toda la familia, mil gracias por mantenerse siempre en contacto.

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