

## Maurits Lieftinck was my guru

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How does one become an odonatologist? I suppose there exist many ways, with chance playing a major role. In my case it helped to have a guru at the right time, beside being born and growing up in a river valley (the Dender) with plenty of water in a village with an important railway station (Denderleeuw). Until the 1950s, steam engine trains were being assembled and maintained here on a daily basis. Around the end of World War II, my grandfather regularly took me on walks in the swampy woods, where I was struck by some blue needles flying around the vegetation. Somehow this left a deep impression on a four-year old, and I never forgot about it. All my grandfather could tell me was that they were dragonflies (in fact, damselflies). It took me about ten years to find out that their scientific name was *Coenagrion puella*.

Why were they so numerous in my valley? Indirectly because of the local railway station. The German troops routinely sent and sometimes parked ammunition trains there, including V2 rocket transports. The trains and the bridges over the Dender were therefore heavily bombarded by the RAF, but the bombing was sloppy and left deep scars in the valley, sometimes kilometers away from the station. After the war, many of these bomb craters rapidly disappeared, but a good number filled up with water and with aquatic biota. The village youths went there to swim and collect sticklebacks and salamanders. So did I. One day in June I made a fantastic discovery in the water plants: a big dragonfly (eventually I would find out it was called *Aeshna cyanea*) hung from a branch as it was emerging from its exuviae. Excited, I watched the process and would see several more in the next days. This was my first contact with the life history of dragonflies and the closest I had ever been to the ecology of these animals. I was a teenager at the time, mildly interested in biology in a broad sense but ignorant of relevant popular or other scientific literature. I frankly had no idea where to search either. Fortunately, a neighbor, Louis Fobert, who had studied chemistry at Gent University, had a side interest in natural history. He had a few drawers with insects of diverse orders, some identified, others unidentified. The dragonflies were mostly unidentified! But he gave me some guidance and explained, among other things, the system of zoological nomenclature. I studied high school Latin and Greek, mandatory at that time to be admitted at university, and so I found it easy to understand Linnaean names. Thus, I was familiar with the basics of binomial nomenclature and systematics before I had ever heard of Darwin. And then, with 4-5 boys of the neighborhood, I founded a biology club. It eventually produced only one biologist, me, but for a couple of years, the club became an active group of collectors of biological items, insects, bird nests and eggs, and even fossils. In those days, such practices were still normal. We set up exhibitions of our holdings, the first of which was in my father's garage, and tried to bring out a club journal. It was stenciled in about twenty copies (all lost now), and it taught me how to handle a quire and correctly assemble a 24 page publication.



Figure 1. (A) Naardermeer May 1969. Getting ready to get into the nature reserve. In the boat Janny Van Brink, Dirk Geyskes (at the oars) and Maurits Lieftinck (smoking). (B) Naardermeer May 1969. In conversation, from left to right: Maurits Lieftinck, Janny Van Brink, Henri Dumont and wife Simonne.

The people of my village visited our exhibitions in numbers, and that provided us with enough money to buy books, a small typewriter, and fund some field trips, allowing us to get an idea of biological environments different from the swamps of our valley. The press got to hear of us, and we were interviewed and even made it to national TV. But we were also growing up. We started dispersing in different directions. In 1956, I finished my village school and moved to the Athenaeum of Brussels. Soon, I discovered that there was a big natural history museum in the capital, and it had a department of entomology.

I still struggled with the identification of most of my dragonflies (and beetles and butterflies as well) and decided to visit the museum, to find out whether they had identified collections that could help me to name my animals as well. I found they could do better than that! I met Dr Georges Demoulin, an ephemerologist from Liege, the closest specialist to dragonflies they had. He agreed to look at my animals, and he came up with a slim volume by one Erich Schmidt, jokingly complaining that I made him suffer (his German was hardly better than mine). The Schmidt fauna of central Europe showed me the first good figures of odonates, and Demoulin explained to me how dichotomous keys work. He also told me about the Belgian entomological society, founded in the 19th century by the Baron Michel Edmond de Selys Longchamps, widely known as the father of odonatology. His enormous dragonfly collection was kept in the museum, and I could visit it if I liked. This came as a shock: this man, almost single-handedly, had built a system for the entire group of odonates, and had described hundreds of species from all over the world. But, for some reason, his works contained almost no figures, and there was also a dearth of good identification works, even for Europe. Schmidt (1929) was excellent, but limited to Central Europe. After I taught myself enough German to be able to use Schmidt, another book, *Odonata d'Italia* (Conci and Nielsen, 1956) came out. So, I taught myself enough Italian to read that one as well. The differences between the two faunas were enough to convince me of the importance of biogeography. And what about ecology? A couple of years later, I discovered and bought a book by one Philip Corbet and still use it today!

When Selys Longchamps died in 1900, he had no successor. He had tried to groom several candidates, including from Britain and Germany, but nobody managed to fill the gap. As a result there would be no dragonfly work to speak of in Belgium for more than half a century. Currently, dragonflies have become almost as popular as butterflies, and the Flemish dragonfly club, for example, has around a hundred members. It is a pleasure for me to attend their meetings! But in the late 1950s, when I started as a village boy, I worked in an intellectual desert.

Selys was a highly organized man. No wonder he kept a detailed diary that was recently rediscovered and published in two massive volumes (Caulier-Mathy & Haesenne-Peremans, 2008). For an analysis of his life and times, and the significance of his work, the reader may also consult Wasscher & Dumont (2013).



*Figure 2. (A) Macromia hunting in Cabrerets (France). On camping communal, Simonne and Henri Dumont and Mrs. Bilek Photo credit: Alois Bilek. (B) Maurits Lieftinck giving his paper at the European Dragonfly workers meeting in Gent, September 1971.*

Around 1957, at the suggestion of Dr Demoulin, I wrote a letter (in French), to Erich Schmidt in Bonn, asking him a number of questions about European dragonflies. I had started a personal research project, of which more below. It would determine my destiny, and I thought Erich Schmidt was the person to call upon for help. After a few weeks, I received a postcard from him in return. It was not very nice. He told me that he could not afford the time to reply to beginners' requests such as mine. He made an exception because of Dr Demoulin's recommendation, and indeed provided short and dry answers to most of my questions (I do not even remember what they were), but it was clear that dragonfly ecology was not his cup to tea. Oddly, the next time he visited to Brussels museum and the Selys Longchamps collection, he gave Dr Demoulin a set of reprints from his own papers for me. They were the first reprints I ever received! I still have them. Erich Schmidt was a strange and paradoxical personality, as others later confirmed to me. I regret I never met him in person.

In the Brussels Athenaeum I had one hour of biology per week. My teacher, Mr Coosemans, managed to fill a whole year with the study of photosynthesis and was not really seeding enthusiasm for his subject into his pupils. But, having heard of my biology club, he took me apart and told me about a yearly prize awarded by the zoo of Antwerp (the Jacques Kets Prize) for an original research work by a final year high-school student. Would I be interested and if so, what subject did I propose? A study of the fossils on top of an Ieperian clay layer in the valley of the Dender? An inventory of the butterflies and beetles? No, I would invest the next two years to learn more about the natural history of the dragonflies, these fascinating insects that spend their larval existence in water, and their adult life in the air. I tried to read about their natural history, and began to set up simple experiments in aquaria. I also spent more and more time in the field, surveying the ponds and bomb craters for their dragonfly fauna, and I identified the species using Schmidt. I came to about 17 species. And I marvelled at seeing an Aeshna larva throw out its mask to capture a chironomid. These were the decisive events that made me decide to become a biologist. Up to that time I had wondered whether to become a linguist or a scientist. Having studied Latin and Greek I had a strong basis in language, and I found I could pick up more languages relatively easily. For fun, I tried to teach myself Russian (with moderate success), and later in life I would try my hand at Portuguese, Turkish and Mandarin.

I won the Kets Prize for 1959, and it came with a nice amount of money. With that, I could buy not only more books, but also my first microscope. Dragonflies in the surroundings of Denderleeuw contains some incredibly naïve prose, but also some precursors to real scientific observations. I allowed myself to mature (Dumont, 1971) and published the updated essence thereof in a paper about a decade later. By that time the species list had grown to 29 species, and currently it has reached 36 species (Van Schandevijl, 2007). The Denderleeuw marshes and bomb pits, currently known as the Wellemeersen, has thereby acquired a regional importance, housing more than half of the Belgian fauna of dragonflies.

As to my future, in September 1959, I enrolled in Gent University. I had long hesitated whether to become a linguist or a biologist, but the Kets award finally tipped the balance in favor of biology. I finished up the standard curriculum in September 1964, earning a degree

called licentiate (in zoology), more or less equivalent to a masters. In those days, French was still the dominant language in Belgium, and there was a tendency to ignore terminologies used in The Netherlands, where licentiate was an unknown word. But we found it funny that the French term licencié has a double meaning. It denotes as well a license holder as a person that gets fired from his job.

The degree, of course, involved a thesis with public defense, on which I worked in 1963-1964. When I went to see my professor, Lucien De Coninck, I had planned a study of the genetics of color change in *Ischnura*. That was a subject that my student Benny Hinnekint would later take up again because I could not even finish my first sentence. No future in that, my promotor said, do dragonflies as a hobby! And please follow me! He drove me to a place called Lake Donk, some 20 km from Gent. A hydrobiological station had existed there forty years earlier. My professor then gave me my subject. It was very concise: have a look at the plankton of this lake.

That is how I became a limnologist. I found out what zooplankton was and began to study its taxonomy and ecology. In 1964, I was offered a scholarship to continue my plankton work for a Ph. D., which I rounded off in November 1968 (Dumont, 1968). I followed the orders of my promotor, and studied dragonflies as a hobby.

In 1965, I finally met Lieftinck, a name from the literature for me until that time. He came to Antwerp to give a talk for the local entomological society. I do not remember how I had become aware of that, but I drove up to Antwerp to hear him talk, not expecting too much from it. I met a tall, grey haired, distinguished gentleman, slightly ageing. His talk was not about the dragonflies of Asia, a subject on which he had published many, many papers, but a comparison between the dragonfly faunas of Belgium and the Netherlands. Not a very exciting subject at first sight, but Lieftinck gave a brilliant speech, making the subject sound like a thriller. It ended with a draw: both countries had 65 species, but that might change in the future, he added.

After the talk, I could speak with him. He commented positively on my very first and rather simple dragonfly papers, one on a mass migration of *Libellula quadrimaculata* that I had been fortunate enough to observe during a stay at the marine biology station at Wimereux, Northern France in 1964. The other was youth work. It described the emergence of some dragonfly larvae and was a part of my Kets Prize work (Dumont 1964a, b).

I was charmed by Lieftinck and even more when, about one week later, I received in the mail two big parcels with countless reprints of his papers, including several old ones that had become difficult to find.

We would henceforth remain in contact, meeting from time to time, and in 1969, we joined up in a full day field excursion. The practical side had been arranged by the omnipresent Bostjan Kiauta. Our objective was to find *Coenagrion armatum* at the Naardermeer. Lake Naarder is a huge wetland, situated between Amsterdam and Hilversum. Lieftinck had discovered the species here in the 1920s, and observed it several years in a row (Lieftinck, 1924). He then moved to Indonesia, and nobody had paid attention to the population of *armatum* since. I was intrigued because this peculiar coenagrionid had never been seen in

Belgium. One morning in May 1969, our party assembled at the entrance of the nature reserve. It consisted of Maurits Lieftinck, Dirk Geyskes, Janny Van Brink, Bostjan Kiauta, Piet Leentvaar, my wife Simonne, and me. At the time, I was doing my military service, meaning I had needed a special permit to leave Belgium. The permit specified only one thing: I had to travel in civilian clothing.

Lake Naarder is not a real lake but a network of canals, swamps, and expanses of shallow open water. Our starting point was a small rowboat-port near a windmill, where we boarded two rowboats. We followed Lieftinck's instructions and stopped at places where he had seen *Coenagrion armatum* about half a century earlier

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(Lieftinck, 1924). It was a warm sunny day, and there were swarms of coenagrionids on the wing, including thousands of *Coenagrion pulchellum*, but no matter how hard we searched, we found no *C. armatum*! Our failure was not nice, but no drama either. We found ourselves a nice spot to have a picnic and engaged in lively discussions about dragonflies. I had brought a bottle of Beaujolais, which we emptied in situ, and Lieftinck clearly enjoyed a good glass. He was also a rather heavy smoker (me too, unfortunately) and so I discovered that he knew how to enjoy life! And *C. armatum* I would later observe in numbers during trips to Siberia, the Urals and Kamchatka peninsula with Anatolyi Haritonov from Novosibirsk.

A message I took home from the trip was that the Wurm glaciation was still felt in the geographic distribution of species, and that glacial relicts that still survived in the Netherlands no longer occurred in Belgium, only a hundred kilometers or so further south.

In late 1971 Bostjan Kiauta twisted my arm to convene the First European Meeting of dragonfly workers at Gent University. Here, we would found the international society of dragonfly workers (SIO) and its journal *Odonatologica*. I had become a university staff member, and my boss, Professor De Coninck now accepted my work with dragonflies. Bostjan Kiauta became the work horse of Journal and Society. The meeting itself (some 30 people) was relaxed and quite pleasant. Dirk Geyskes, probably Lieftinck's best friend, spoke about the dragonflies of Surinam, while Lieftinck spoke about the tropics. In private, he told me that our knowledge of the odonates of the eastern Mediterranean basin was deeply insufficient while this was the area where the transition to the oriental region was to be found. I had just come back from a field trip in Morocco, largely in his footsteps, and now would turn east, to Yugoslavia and Turkey.

But even before that, Lieftinck (1966) had attracted my attention to one peculiar corduliid dragonfly, the single west-palaearctic representative of a large tropical genus, viz. *Macromia splendens*. With the reprint of Lieftinck's paper in my hand, I drove to the Lot region in SW France. It was end of June 1969, and I was still in the army. I took out another travel permit and a week of holidays. The Dumont family boarded the Renault 4 once more, and took off.

We reached the village of Cabrerets on Célé where a municipal campsite near the river Célé became our late-June temporary home.

The first day I spotted and captured a female along a road away from water, the first specimen I ever laid eyes on. But in the next days the weather turned rainy and no dragonflies were on the wing. Then, we noticed we were not alone in the campsite. Each late afternoon, a VW beetle with an elderly couple aboard came to spend the night. They left during the day, each time reforming the interior of their car from a sleeping room to a regular car. The license plates said Austria and jokingly, I told my wife: this must be Bilek. Next I saw the man searching the trees bordering the river, and I was stunned. Could my wild guess be true? I walked to the little grey-haired man and asked him in French what he was doing. He replied in German, stating that he was looking for “ganz bestimmte Insekten...”, at which point I interrupted him and said “oh, you mean *Macromia*”. His turn to be stunned! I introduced myself and indeed he was Alois Bilek, and the couple had been there for a week, and captured a beautiful series of *Macromia* (Bilek, 1969). We spent the rest of the week together and had a pleasant time, in spite of the rain and my wife not feeling well, especially in the mornings (it later turned out that our daughter was underway, she was born in January 1970). Bilek (a lab technician in the Museum of Vienna, originally a musician and violin builder) I would never see again, but Lieftinck I would keep meeting from time to time and I am happy to acknowledge his influence on my work. To this day I am profoundly grateful to this “grand monsieur” for having shown me the way to conduct my “hobby”. He never earned an academic degree, but was given a doctorate honoris causa by Basel University. I never dared calling him by his first name, but always addressed him as doctor, respectfully! He truly was the reincarnation of Selys Longchamps.

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- Reading Lieftinck (1965) on Morocco had the immediate effect that I would drive there, in my Renault 4, with wife, son and tent in spring 1971. I found that April was too soon, but returned in July-August with a group of students and came home with a rich harvest (Dumont, 1972).