



From an Ekman Grab to a Professorial Chair: A Reflection on Environmental Fieldwork, Perseverance, and Gratitude

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Abstract

In June 2026, while clearing old papers from my office, I unexpectedly rediscovered photographs taken on 17 April 2002 during an environmental field sampling at Kampung Pasir Puteh, near Pasir Gudang in the Straits of Johore, Malaysia. The photographs showed a much younger version of myself manually deploying an Ekman grab for surface sediment sampling and participating in the collection of mussels from floating structures. My immediate reaction was humorous: *Who is this stupid boy? I hardly recognise him!* Yet the laughter quickly gave way to nostalgia, gratitude and a deeper appreciation of the long and often unpredictable journey of an academic life. Twenty-four years separate the young researcher holding that sampling rope from the full professor of ecotoxicology looking at the photograph today. This reflective commentary uses those photographs as windows into the largely invisible processes through which scientists are formed. Academic careers are commonly represented through degrees, publications, citations, grants, promotions and professional titles, yet their foundations are often constructed through much simpler experiences: carrying equipment, collecting samples, repeating unsuccessful procedures, learning from mentors, working alongside colleagues, making mistakes and persisting when the eventual destination remains unknown. The physical demands of environmental field research also remind us that environmental science is not created exclusively at laboratory benches or computer screens. Behind a single concentration reported in a scientific table may lie hours of sampling, travelling, specimen handling, laboratory preparation, analysis and collective effort. Looking back from June 2026, I feel less interested in celebrating the professorial title than in thanking the younger researcher who continued doing the work without knowing where it would eventually lead. I am equally grateful to the mentors, colleagues, technicians, field assistants, students, collaborators and family members who became part of that journey. My message to young researchers is therefore simple: do not become excessively concerned with appearing successful or reaching academic destinations quickly. Learn the basics, collect your data carefully, remain curious, respect the people working beside you, preserve your records, accept correction and proceed step by step. An apparently ordinary environmental field day may eventually become one of the most meaningful photographs of your scientific life.

Keywords: Academic Journey; Ecotoxicology; Field Research; Mussels; Environmental Monitoring; Mentorship; Perseverance; Scientific Identity; Reflective Practice

Introduction: I Was Only Trying to Throw Away Some Papers

I was not conducting an experiment when this reflection began. I was simply trying to clean my office. In June 2026, surrounded by accumulated papers, old records and materials that had somehow survived years of office cleaning, I decided that some things finally had to go. Then, among the papers destined for disposal, I found several photographs dated 17 April 2002. I stopped. There he was: a young researcher standing beside the polluted coastal waters of Kampung Pasir Puteh near Pasir Gudang, lowering an Ekman grab into the Straits of Johore (Figure 1). Another photograph showed the field team collecting mussels around floating structures on the same day (Figure 2). My first reaction was hardly the language expected of a professor writing a scholarly commentary: *Who is this stupid boy? Siapa si badut ni?* I laughed because, for a moment, I genuinely felt as though I were looking at somebody else.

Twenty-four years separate that young environmental field researcher from the person writing this reflection. Scientific careers look surprisingly orderly when reconstructed retrospectively. A curriculum vitae converts decades of life into dates, qualifications, publications, appointments, grants, awards and promotions. It gives the impression of continuous forward movement. The lived



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experience is considerably messier. There are failed experiments, rejected manuscripts, uncertain research directions, exhausting environmental field days, equipment failures, repeated analyses and long periods when the eventual destination is impossible to see. Scientific thinking itself develops through sustained engagement with inquiry, observation, experimentation, evidence and inference rather than through the passive accumulation of information [1]. Similarly, direct engagement with organisms and environments continues to provide fundamental knowledge for ecology, evolution and conservation despite enormous advances in laboratory and computational technologies [2].

The objective of this reflective commentary is therefore to use my unexpected rediscovery of photographs from 17 April 2002 as a point of departure for examining how ordinary scientific experiences contribute to the formation of a researcher. It is particularly addressed to young scientists who may currently be standing where I once stood: tired, uncertain, physically exhausted, perhaps muddy, perhaps holding equipment that refuses to cooperate and perhaps wondering whether any of this effort will eventually matter. I cannot promise them that every difficult field day will lead to an important publication or professorship. What I can say after 24 years is that these experiences accumulate. They teach scientific discipline, resilience, humility and respect for evidence. Very often, we understand their significance only much later.

Figure 1: Before the Data, There Was a Rope

Figure 1 shows me manually deploying an Ekman grab for surface sediment sampling at Kampung Pasir Puteh, near Pasir Gudang in the Straits of Johore, on 17 April 2002. Today, this procedure might occupy only a short sentence in the Materials and Methods section of a scientific paper: *Surface sediments were collected using an Ekman grab*. Such a simple statement can make environmental fieldwork sound remarkably easy. The photograph tells another story. The grab had to be lowered into the water, allowed to reach and penetrate the sediment, triggered correctly and then hauled back to the surface. If insufficient or unsuitable sediment was retrieved, the procedure had to be repeated. The material then had to be transferred carefully, labelled, stored and transported for subsequent laboratory preparation and chemical analysis. There was no computer command for any of this. There was certainly no button labelled *Generate Results*, and unfortunately there was no button labelled *Publish in Q1 Journal*. There was an Ekman grab, there was a rope, there was polluted coastal water, and somebody had to pull that rope. Looking at the photograph now, I smile because what eventually became neat concentrations in scientific tables began with something so physically basic.

What I find particularly meaningful today is that this apparently simple activity represented genuine scientific education. Environmental fieldwork develops observation, patience, adaptability, discipline and respect for environmental variability. Direct engagement with organisms and environments remains fundamental to biological and ecological understanding because sophisticated interpretations ultimately depend upon reliable observations of the natural world [2]. This experience also connects directly with a philosophy that I would articulate many years later as “the basic is still basic.” In my earlier personal reflection, I emphasised that academic development should remain grounded in strong foundations, continuous learning, humility and the understanding that seemingly elementary knowledge and skills continue to matter

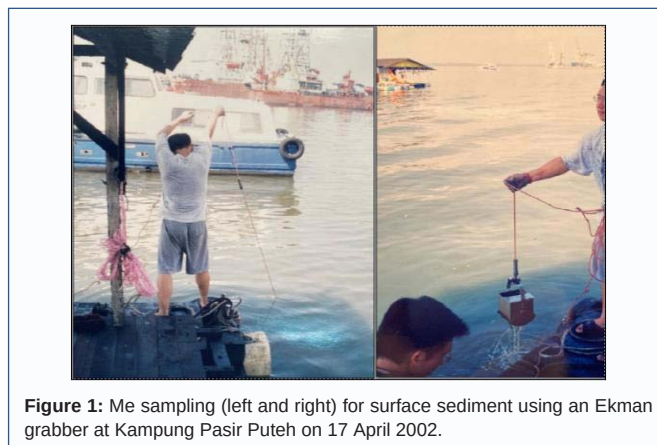


Figure 1: Me sampling (left and right) for surface sediment using an Ekman grabber at Kampung Pasir Puteh on 17 April 2002.

even at advanced stages of an academic career [3]. I subsequently extended this philosophy through experiential knowledge, ecological simplicity and the wood trees analogy, arguing that complex systems become more understandable when their fundamental components and relationships are first recognised and appreciated [4]. What surprises me now is that I had been living this philosophy long before I had written a single sentence about it. In April 2002, I did not call it experiential knowledge or ecological simplicity. I simply knew that if the Ekman grab did not collect the sediment properly, everything that followed would be compromised.

Looking at this photograph after more than 24 years therefore gives the phrase “the basic is still basic” an unexpectedly personal meaning. Before sophisticated interpretation, there must be trustworthy observation. Before statistical modelling, there must be reliable data. Before reliable data, there must be proper sampling. Before proper sampling, somebody must understand why the sample is being collected in the first place. This progression reflects the philosophy expressed in my later reflections [3, 4], but the young researcher holding the rope in Figure 1 knew nothing about those future publications. He was not thinking about professorship, citation counts, impact factors or academic rankings. He simply wanted the Ekman grab to come back with a good sediment sample. That was the basic, and the basic mattered. Young researchers should therefore never feel that fundamental field or laboratory work is beneath them. Learn how to collect a representative sample. Learn how to label it properly. Keep a good environmental field notebook. Understand the biological meaning of what you are measuring. Learn to recognise when a result does not make ecological sense. Statistics, advanced instrumentation and artificial intelligence can strengthen scientific inquiry enormously, but none can transform poor sampling into good science. The full professor looking at this photograph in August 2026 therefore owes something important to that ordinary looking young researcher of April 2002: before he learned how to interpret complex ecotoxicological datasets, he first learned how to hold a rope and collect the sediment properly.

Figure 2: The Mussels Did Not Walk into the Laboratory

Figure 2 makes me smile even more because almost everyone appears to be crouching, balancing, reaching or trying not to fall into the water. We were collecting mussels from floating structures, working from narrow platforms and a small boat. This is another reality that disappears beautifully when converted into scientific prose. A manuscript may simply report that *mussel specimens*



Figure 2: Field collection of mussels from floating structures at Kampung Pasir Puteh, Pasir Gudang, Straits of Johore, Malaysia, on 17 April 2002. Me second from the left. On the left end is Mr Teh C.H.

were collected from Kampung Pasir Puteh. The sentence gives the unfortunate impression that the mussels somehow presented themselves voluntarily for scientific analysis. They did not. Mussels do not read research proposals, understand sampling schedules or report punctually to the laboratory. Somebody has to find them and collect them. On 17 April 2002, that somebody was us.

The photograph also reminds me that environmental research is simultaneously intellectual and physical. Scientists are sometimes portrayed as though they exist only from the neck upward, thinking profound thoughts beside microscopes or computers. Environmental field ecology corrects that impression very quickly. Hands, knees, backs, boats, ropes, mud, heat, tides and balance all participate in environmental research. Mussels have long been valuable organisms for pollution monitoring because their biology allows contaminant exposure in coastal environments to be evaluated through accumulated chemical burdens. Yet the conceptual elegance of biomonitoring ultimately depends upon practical activities such as locating populations, obtaining appropriate specimens, recording environmental conditions and processing biological materials consistently. Behind every concentration expressed as mg/kg dry weight is a chain of human effort that the final numerical value does not reveal.

Looking at Figure 2 also changes the pronoun with which I remember my career. It becomes less I and more we. I was not alone on that floating structure. People worked beside me, helped with sampling, handled equipment, transported specimens and shared the discomfort and uncertainty of environmental fieldwork. Mentorship and interactions with experienced colleagues are also important mechanisms through which younger researchers acquire both explicit knowledge and the tacit practices of professional scientific work [5]. I therefore look at this photograph with considerable gratitude. Science may eventually place one person's name prominently on a publication or academic title, but the pathway leading there is almost always populated by many people. *Aiyaaa!* may still be an appropriate description of the physical effort that day, but thank you is the expression that comes more naturally 24 years later.

The Young Man Did Not Know He Was Becoming a Professor

The most powerful aspect of these photographs is something that cannot actually be seen in them. The young researcher in Figure 1 had absolutely no knowledge that 24 years later he would be looking

at the same photograph as a full professor of ecotoxicology. He could not know, and perhaps it was better that way. I certainly was not pulling the Ekman grab while calculating how many more sediment samples were required before professorship. I was concerned with the immediate task. Was the grab working? Was there sufficient sediment? Was the sample properly labelled? What had to be done next? One sample followed another, one analysis followed another and one problem eventually gave way to the next problem.

Looking backwards makes a career appear continuous, whereas living forward means seeing only a short distance ahead. This has become one of the most important lessons I would communicate to young researchers. Scientific identity is constructed through repeated participation in scientific practices rather than suddenly conferred by a certificate or academic appointment. Zimmerman [1] showed that scientific thinking involves the development of skills in experimentation, evidence evaluation and inference. A doctoral degree may formally recognise research competence, but it cannot manufacture curiosity. Likewise, a professorial appointment recognises an accumulated academic record but cannot retrospectively substitute for all the ordinary experiences through which scientific judgement was acquired.

There is therefore something beautiful about the ignorance of my younger self. He did not know the destination, so he concentrated on the next task. Step by step. One sample properly collected is better than ten samples carelessly collected. One paper genuinely understood is more valuable than many papers superficially read. One methodological problem solved independently can teach more than simply following instructions without understanding them. Young researchers understandably worry about where their careers are going, but excessive attention to destinations can distract from the education contained in the journey itself. In April 2002, I did not know that I was becoming a professor. I was simply trying to do the work properly. Perhaps that was exactly what I needed to be doing.

Rupa Hodoh Jangan Disangka Seorang Bodoh

I cannot write truthfully about my reaction to these photographs without preserving some humour. When I first looked at myself in the 2002 photographs, I certainly did not see somebody carefully cultivating the appearance of a future professor. The clothes were ordinary, the working conditions were rough and the posture was anything but ceremonial. This prompted my playful adaptation of familiar Malay wisdom: *Air tenang jangan disangka tiada buaya*. Then came my less conventional version: *Rupa hodoh jangan disangka seorang bodoh*. It makes me laugh, but underneath the joke lies something I believe very seriously about education and scientific life.

Science should teach us to distrust superficial appearances. A quiet student may possess extraordinary analytical ability. A researcher from a little-known institution may develop an excellent hypothesis. A simple experiment may produce an important observation. Conversely, an impressive title, expensive equipment, fashionable terminology or enormous publication list does not automatically guarantee scientific wisdom. Science ultimately requires evidence, reasoning, reproducibility and intellectual integrity. Developing scientific thinking means learning to evaluate claims against evidence rather than accepting them because of status, appearance or authority [1]. This principle is particularly important in universities,

where hierarchy can sometimes unintentionally encourage young researchers to underestimate themselves.

My message to young scientists is therefore straightforward: you do not have to look like a scientist. Learn to think like one. Ask questions. Observe carefully. Admit when you do not know something. Change your interpretation when the evidence requires it. Never manufacture certainty simply because uncertainty makes you uncomfortable. Respect the technician who knows the instrument better than you do. Listen to the student who notices something you missed. And never dismiss someone because he looks like the slightly questionable fellow holding the rope in Figure 1. *Air tenang jangan disangka tiada buaya*. The young researcher covered in sweat and mud today may be quietly developing into somebody whose scientific contribution will become apparent only decades later.

What Twenty-Four Years Did to My Understanding of Success

When we are young academics, success is easily translated into numbers. How many publications? How many citations? Which journal? What impact factor? What grant? What position? How quickly can promotion be achieved? These measurements have legitimate roles because scientific work must be evaluated and scholarly contributions must be communicated. Yet 24 years have considerably enlarged my understanding of what constitutes academic success. The longer I remain in academia, the more difficult it becomes to believe that the most meaningful parts of an academic life can be represented completely by numerical indicators.

Success can also be the student who finally understands a difficult concept because I explained it differently. It can be a postgraduate researcher who gradually stops asking what to do next because he or she has learned to think independently. It can be a dataset collected carefully enough to remain scientifically valuable years later. It can be recognising that my original interpretation was wrong and having enough intellectual honesty to change it. It can be repeating an analysis because the result does not make biological sense. It can be maintaining scientific integrity when nobody is watching. And sometimes, as I discovered in June 2026, success can simply be finding an old photograph and quietly realising: I stayed with it.

An academic career inevitably contains rejection, disappointment, criticism, equipment failures, unsuccessful applications, difficult relationships and periods when progress seems painfully slow. Perseverance, however, should never mean repeating the same mistake indefinitely. Scientific resilience requires adaptation, learning and reflection. Strangely, the Ekman grab has become a useful metaphor for me. Lower it. Retrieve it. Examine what came back. If it failed, understand why. Adjust the approach and try again. Research works rather like that. So does much of academic life. The ability to continue while still learning may ultimately matter more than the ability to appear permanently successful.

Gratitude Becomes Larger When Looking Backwards

One major difference between the young researcher photographed in 2002 and the professor reflecting in 2026 is that the latter understands much more clearly that an academic career is never constructed alone. The older I become, the less convincing I find narratives of individual academic greatness. Behind every researcher stand teachers, supervisors, technicians, colleagues,

students, collaborators, field assistants, boat operators, laboratory personnel, friends and family members. Some appear as coauthors. Many never do. Yet without their contributions, numerous scientific achievements attributed to individuals would simply not exist.

Mentorship deserves particular recognition because scientific education includes much knowledge that cannot be acquired simply by reading methodological instructions. Young researchers learn how laboratories actually function, how field problems are solved, how unexpected results should be approached and how professional scientific communities operate partly through interactions with experienced colleagues. Ostroff and Kozlowski [5] demonstrated the important role of mentoring in helping newcomers acquire information and understand organisational environments. In research, good mentorship similarly extends beyond telling somebody which procedure to follow. At its best, mentorship gradually develops independence, judgement, confidence and responsibility.

I therefore look at these photographs with gratitude rather than self-congratulation. I am thankful to those who taught me when I knew much less than I thought I knew. I am thankful to those who worked beside me under uncomfortable field conditions. I am thankful to technicians and assistants whose labour made analyses possible. I am thankful to collaborators who challenged my interpretations and to students who later transformed me from learner into mentor while continuing to teach me in return. Even difficult experiences deserve a certain gratitude because some lessons can be learned only through discomfort. A professorial title can tempt a person to look downward from an imagined summit. These photographs make me look backward along the path instead. I prefer that view.

A Message to the Young Researcher Standing Where I Once Stood

If I could somehow enter the photograph dated 17 April 2002 and speak briefly to the young researcher holding that rope, I would not tell him, "One day you will become a full professor." I suspect that knowledge might actually spoil part of the journey. Instead, I would tell him to continue doing the immediate work carefully. Collect the samples properly. Write everything down. Keep the environmental field notebook. Label every container clearly. Ask questions when confused. Learn from technicians. Respect field assistants. Listen to supervisors but also learn eventually to think independently. Read widely. Accept correction without interpreting every criticism as an attack. And when an experiment fails, first ask what the failure can teach before deciding that the day was wasted.

I would also tell him something that seems almost trivial but suddenly became important in June 2026: keep the photographs. Researchers today can generate thousands of digital photographs almost effortlessly, yet that abundance can make individual images seem disposable. Properly documented field photographs can preserve information about sampling environments, environmental field practices, infrastructure and ecological conditions that acquire increasing historical significance with time. Natural history records and observations remain important because environments and biological communities change, making well documented historical observations potentially valuable for later ecological interpretation [2]. A photograph should therefore have a date, location and description whenever possible. Twenty-four years later, those details can transform an old picture into a scientific record.

Most importantly, I would tell that younger version of myself

not to hurry unnecessarily. Academic life can encourage constant comparison. Somebody publishes sooner. Somebody receives promotion earlier. Somebody obtains a larger grant. Somebody appears more successful. But another person's timeline cannot become the experimental control for your entire life. Work carefully. Learn continuously. Preserve your integrity. Help others when you are eventually able to help them. The purpose of becoming experienced is not merely to move higher in a hierarchy but to become useful to those travelling behind you. If young researchers remember that principle, then perhaps the scientific community they eventually inherit will be kinder, wiser and stronger than the one they entered.

Conclusion

I began this experience intending to throw things away. Instead, I recovered something that I did not realise I had lost. On 17 April 2002, at Kampung Pasir Puteh in the Straits of Johore, a younger version of myself lowered an Ekman grab into polluted coastal water and collected mussels with colleagues from floating structures. It was physically demanding work. It was probably hot, uncomfortable and tiring. Twenty-four years later, in June 2026, I looked at those photographs as a full professor of ecotoxicology. For a moment, however, the professorial title seemed almost irrelevant. I simply looked at that young man, laughed and wondered: *Who is this stupid boy?*

Now I know the answer differently. He was not stupid. He was learning. He was becoming. Without knowing it, he was carrying something much heavier than an Ekman grab. He was carrying the beginnings of a scientific life. This is what I hope young researchers will take from my reflection. They may presently be collecting samples that nobody considers exciting, repeating an experiment for the fifth time, struggling with equipment, receiving another manuscript rejection or wondering whether they are progressing quickly enough. Their present difficulties do not guarantee future professorship, nor should professorship be regarded as the only meaningful destination of scientific life. But careful work changes a researcher. Every genuine encounter with evidence develops judgement. Every honestly examined mistake can become education. Every good mentor leaf something behind, and every student later taught carries part of that accumulated experience forward.

When I look at these photographs now, therefore, the strongest emotion is not pride but gratitude. Thank you to the people who walked beside me. Thank you to the mentors who taught me. Thank you to the colleagues, technicians, field assistants, collaborators and students who became part of the journey. Thank you to the polluted environments that became unexpected classrooms and to the sediments and mussels that became subjects through which I learned to understand ecotoxicology. And finally, thank you to that ordinary looking young man holding the rope on 17 April 2002. He had no idea where he was going. He did not look like a professor. He did not need to. He was already doing the work that would slowly make him one. Aiyaaa. What a journey!

Declaration on the Use of Artificial Intelligence

The author declares that generative artificial intelligence tools were used in a supportive capacity during the preparation of this manuscript. These tools assisted with language refinement, structural organisation, and stylistic clarity of the text. All ideas, interpretations, reflections, and conclusions presented in this paper are the author's own and are grounded in personal experience and scholarly judgment. The author retains full responsibility for the content, accuracy, originality, and integrity of the manuscript.

References

1. Zimmerman C. The development of scientific thinking skills in elementary and middle school. *Developmental Review*. 2007; 27(2): 172-223.
2. Nanglu K, de Carle D, Cullen TM, Anderson EB, Arif S, Coiro M, et al. The nature of science: The fundamental role of natural history in ecology, evolution, conservation, and education. *Ecol Evol*. 2023; 13(10): e10621.
3. Yap CK. The basic is still basic: A biology professor's philosophy and personal reflection. *I Tech Mag*. 2024; 7: 01-03.
4. Yap CK. The basic is still basic: A biologist's reflection on experiential knowledge, ecological simplicity, and the wood trees analogy in understanding complex systems. *MOJ Biol Med*. 2026; 11(2): 45-50.
5. Ostroff C, Kozlowski SWJ. The role of mentoring in the information gathering processes of newcomers during early organizational socialization. *Journal of Vocational Behavior*. 1993; 42(2): 170-183.