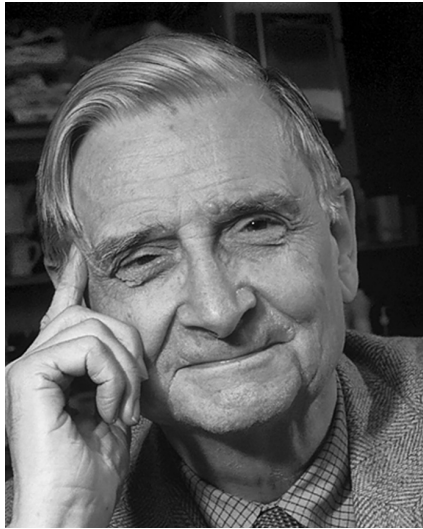




Edward O. Wilson: I Was Trying to Find Every Kind of Ant

MARLIN E. RICE

Edward O. Wilson was born 10 June 1929 in Birmingham, Alabama. He is generally recognized as one of the leading biologists in the world, and is acknowledged as the creator of two scientific disciplines (island biogeography and sociobiology), three unifying concepts for science and the humanities jointly (biophilia, biodiversity studies, and consilience), and one major technological advance in the study of global biodiversity (Encyclopedia of Life). From an early age, he was interested in natural history, especially insects and reptiles. He partly blinded himself while fishing, when the dorsal fin of a fish cut his right eye, which later required surgery. His stereoscopy was lost, along with a diminished capacity to observe wildlife, but his left eye vision was 20/10 and this allowed him to see minute details on insects, which then became his passion. He served as nature counselor at a Boy Scout camp in Alabama and advanced to the rank of Eagle Scout. Wilson earned B.S. (1949, Biology) and M.S. (1950, Biology) degrees from the University of Alabama, and a Ph.D. from Harvard University (1955, Biology). Among more than one hundred awards Wilson has received worldwide are the U.S. National Medal of Science, the Crafoord Prize of the Royal Swedish Academy of Sciences (equivalent of the Nobel for ecology), the International Prize of Biology and Cosmos Prize of Japan, the National Geographic Hubbard Medal, and two Pulitzer Prizes in nonfiction. Wilson



Edward Wilson, 2003 (photo by Jim Harrison).

is a Founders' Memorial Award recipient and Fellow of the Entomological Society of America. He is currently Honorary Curator in Entomology and University Research Professor Emeritus at Harvard University, and a member of the National Academy of Sciences, the Royal Society of London, and the Academy of Natural Science of Russia.

I first met Wilson in 1996 when he gave a lecture at Iowa State University. Written questions were provided prior to the interview, which occurred by telephone. Pauses in his response are noted with an ellipsis (...) and retained for effect. This interview occurred 4 October 2013; Wilson was 84 years old.

Rice: Dr. Wilson, thanks for the opportunity to conduct this interview.

Wilson: You are welcome and please, call me Ed. I will try to be, or how shall I say... parsimonious...and not wander. But you just cover so much territory in the questions you sent that it is not easy for me to remain on the point.

This interview will be published in the American Entomologist by the Entomological Society of America.

Remind me of the *American Entomologist*. That's a separate journal? I was thinking of the *Bulletin* [of the Entomological Society of America].

The American Entomologist is the official magazine of the Society.

Okay, I just wanted to place it. The Entomological Society of America is my professional birthplace. It's just that I wandered well away over the years and that's the reason for my ignorance now. Okay, shall we begin?

Yes sir. I went out and bought your book Letters to a Young Scientist and read that last night. I have changed some of my questions, so they won't follow exactly what I sent.

That's perfectly all right. I'll respond as best I can.

Please feel free to elaborate in detail, but you said you wanted to be parsimonious.



Edward Wilson, Eagle Scout, 1944.

Certainly, I understand, but perhaps the footnotes and the asides that occur to us spontaneously could prove to be among the most interesting.

Very good. First question. What was the seminal experience that influenced your decision as a young boy to study ants?

I decided to study ants when I was 16, but I decided to be an entomologist when I was only nine years old. I moved with my parents for a brief visit while my father worked for the Department of Agriculture in Washington. It was then that I got an intense interest in butterflies, but also ants. The butterflies were my main interest for many years, and then snakes, when I returned to Alabama. I pursued those groups intensely and then decided when I was 16, I prepared to go to college—no member of my family had ever gone to college—and I figured that you had to be very well prepared. I thought ascending this Elysium you better know what you want to do and start on some serious studies early. So after a brief romance with flies, I picked a group of insects that I liked in Alabama, and that was ants. I had developed an earlier interest in ants from the *National Geographic* article by William Mann, who wrote about them from personal experience. But I didn't start studying ants until I was 16.

As a young boy, you earned the rank of Eagle Scout, but did you ever earn the Insect Study merit badge?

Immediately. [Laughs.] When I started

to earn merit badges, naturally that was the one that was the pushover for me, so I earned it first.

Just as an aside, I also was an Eagle Scout and I earned Reptile Study first.

That's understandable, but eventually you got to the right group of organisms. I want to tell you something on the side about Eagle Scouts. I have scheduled with *The New York Times Book Review* an article they asked me to write on the most influential book of my adolescence. So I undertook it by saying, "Well, I didn't have much of a background when I was growing up as a teenager. I read two books—one was by Owen Wister, *The Virginian*, and the other one was the Boy Scouts of America manual of 1938. The latter made all of the difference and that's where I got a large part of my education—the Boy Scouts of America. That one book transformed me." My article to *The New York Times*, if they don't squeeze too much out of it, will be an account of why the Boy Scouts of America matter. I concluded it with a final sentence, which I'll ask you and others to ponder, "Who is the more likely to be successful in making a significant contribution to society—a graduating senior of an elite prep school in New England or an Eagle Scout in Kansas?" And I think you see what I'm getting at here. The Boy Scouts of America has done so much for so many people, and for this country.

I love that perspective. I look forward to seeing it in print. Next, this is really broad and I apologize, but what is your passion in entomology—the thing that most motivates you?

These are hard things to plumb in the imagination and the heart, but for me from the very beginning it was the thrill of discovery. Even when I was just a little kid hunting for butterflies or a beginning graduate student going into the tropics for the first time, I was searching for rare or new kinds of insects, and to discover new and exciting things about them. So the magnet for me was simply exploration and discovery.

What was one of the most unusual things you did as a graduate student?

I did a lot, frantically happy at the opportunity. As soon as I got to Harvard as a beginning graduate student working on a Ph.D., I began serious research. I set out in the following summer of the first year on an

automobile trip with my close friend, Tom Eisner, who went on to a distinguished career in entomology. We made the trip in a broken-down car, for which the oil had to be replaced about every 30 or 40 miles. We made a tour of North America starting in Boston, moving through New England, up into Canada, and then back down to the northern United States, all the way around to the Southwest and along the Gulf coast and back to Harvard, each day sleeping, stopping, camping, and spending almost no money, living on beans and collecting and studying insects all along the way. 1952. It was a formative experience for both of us. Another formative period was as I finished my Ph.D., I obtained support from Harvard that took me on ten months in the field and a dream trip to the South Pacific islands of New Caledonia and New Hebrides, the latter now the Republic of Vanuatu. I also spent time in Australia and, especially, New Guinea. It was 10 months of intense study at the graduate and then post-doctorate level. I'd like to add a bit of advice here to young scientists—try to have that kind of experience as early as possible and use it to explore *on your own*. On your own you're totally open to making discoveries and learning new things that you're not expected to learn.

I think you elaborated on that idea in your book, *Letters to a Young Scientist*, where you challenged students to ask "where was the adventure, what was the dream?"

Yes. I think that is extremely important related to the idea of a purpose-driven life. In science, you really do need to have a purpose-driven life. You will succeed to the extent that you get the most out of your career so that you can give the most back. Try to be an addict, driven to achieve discoveries, learning new things, and then writing about them.

It's interesting that you mentioned purpose-driven life. That is the title of a book by Rick Warren.

I know it well. Did I use the word secular? I should have used the word secular. I like the expression and I borrowed it. A purpose-driven life is what makes the best scientist, too.

Yes, and I think you challenged your readers in *Letters* to that effect. My next question is that I believe you are credited with reporting the first colony of red

imported fire ants in the United States.

Yeah, that was a rather incredible experience for a kid. My family, on my father's side, was living in Mobile, Alabama, then. The family had been living there since the 1820s and we had a big house just a few city blocks from the edge of downtown Mobile, but also from the edge of the docking areas of Mobile where introduced species in cargo could easily make it from South America to Mobile. And that's the reason why in 1942, when I was 13 years old, and I was trying to find every kind of ant in the vacant lot next to our house, I discovered the fire ants. To this day, I remember every ant colony I found as I went over the lot inch by inch. I know the names of the species that I found. There were four of them. One was a colony of a small yellow ant, *Pheidole floridana*, that was nesting under a whiskey bottle. But the one that most stuck in my mind was a big mound-building ant. I realized as time passed that although I didn't know what it was at the time, I soon learned precisely what it was [*Solenopsis invicta*] because by 1947 and '48, the imported fire ants had begun to spread from Mobile. It was everywhere; those nests were everywhere, those big mounds that they build. By the time I was still an undergraduate at the University of Alabama, the ant was creating a lot of problems for farmers and hunters, and was a major general pest in the area. So still a 19-year-old senior at the University of Alabama in 1949, the State of Alabama hired me as an entomologist. They gave me three months to learn everything I could about the imported fire ant and write a report for the state. And I did that. I was assisted by another student with a car. We found that the ant was spreading out at five miles a year from Mobile in all directions. I mention this in some detail because I am proud of that accidental contribution to history. I believe I was the first to find that ant in the U.S., certainly the first to study it in any detail.

Well, who better to find that ant than the man who has been described as the "Lord of the Ants"?

[Laughs.]

Regarding your books, best I can count, you have authored or co-authored 28 books.



Solenopsis sp., Mississippi (photo by M. E. Rice).

It's 30 now. I have two in press, so 30.

Which title would you recommend as a "must read" to university students studying entomology?

I am going to mention one that may seem to be out of date. There are only a few spots, however, in which it is truly out of date. It still has all the basics at the level that a serious student of entomology would want to know, and not just about ants, but all of the social insects. That's the book *The Insect Societies*. I published it in 1971. It included intense detail and also the elementary principles of social insect biology. I tracked much of the basics on life cycles and the main biological traits of the different groups of social insects. For a general introduction that book is still the best in the market—if I do say so myself!

I confess I have not read that one, so I will have to add it to my list.

Yeah, *The Insect Societies*. I think you will enjoy it. It is *beautifully* illustrated. I give credit to a superb artist, Sarah Landry, who worked with me in this book and later *Sociobiology*.

In one of your most recent books, *Letters to a Young Scientist*, you posit a question, and that is "what kind of great discovery, and in what field of science, would you savor most having made?" How would you answer your own question with respect to the field of entomology?

I think I do deserve, and in fact get the credit for, having invented the discipline of sociobiology. What else? Oh, also using insects, I was one of the first researchers in the late '50s and early '60s on pheromones of insects, particularly using ants as a subject and working with natural products chemists to identify pheromones. But I also worked with a mathematician named

William Bossert in the early '60s to create a first theory of the evolution of pheromones: why they are a certain size and a certain complexity, what the active spaces of the plumes of pheromones as they travel through the air look like,

and so on. Other than that, I would say that summarizing several times over in different years, different decades, most of what we know about social insects, especially ants, was another principal contribution.

You summarize that work in your *Letters* quite well.

Yeah, I put in personal stories because I'm addressing students in the second person, creating the tone and theme I've used. Students, being people, want to hear stories, not just read about science in a book. That's why I put so many of those in *Letters to a Young Scientist*.

Speaking of students, what was a favorite saying or maxim that you liked to give to your students?

There were certain things that I did inculcate, including the following: when your research is done, or at some point in your research, always ask yourself...as a self-critique..."I have discovered that . . ." and finish the sentence. It kind of cuts down on the BS. [Laughs.]

Okay, straight to the point! In your monumental revision of the ant genus *Pheidole*, you described 337 new species. Yes.

Do you know the total new species of ants you have described and what was the most unusual name that you ever gave a new species?

I sat down and calculated once—450 approximately. I think that is correct to the nearest ten. One new species was *Pheidole harrisonfordi*. It may look a little quirky, but it is actually not. I'll explain how I arrived at that. I'm a friend of Harrison Ford because we served for a number of years on the Board of Directors of Conservation International, and over the years I noticed how he was one of the most effective and dedicated members of the board. As I was finishing *Pheidole*, I was running short of names. You know,

Minor and supermajor workers of *Pheidole rhea*, North America's largest *Pheidole*, Arizona (photo by Alex Wild).



you have one genus and then you have to have names for over 300 species that you are describing as new. Pretty soon you start running out of decent descriptive adjectives in Latin and Greek, and after you also anoint several of your key colleagues and collectors of the species, you still need names. So I called up the president of Conservation International and I said I think I want to do something a little unusual—name new species after the people on this board who made really *major* contributions in their work and effort in global conservation. Recognize them with naming a new species after them. Harrison Ford was one of the names. I named eight species after members of the board. And I didn't want to just have *Pheidole fordii*, because there were probably a lot of Fords, but Harrison Ford would do it. I thought that maybe that would just bring a smile to the members of the board and the people who were getting the names. In fact, it caused an *enormous* reaction. I'll tell you this story on the side.

We met for the next big annual gala in Seattle and at that time I had provided the original drawings by my own hand of the different species. I made over 5,000 drawings to get through this darn monster genus. The original drawings were framed and awarded, or given to the key leaders of the board and that created a lot of excitement. Harrison Ford was in the middle of making a film at that point. When he learned that he was going to be presented with an ant named after him, he actually closed the studio—the whole production—for a couple of days. He got his plane—he is an excellent pilot—and he flew, in a *storm* no less, to Seattle to be present and get the drawing of his ant.

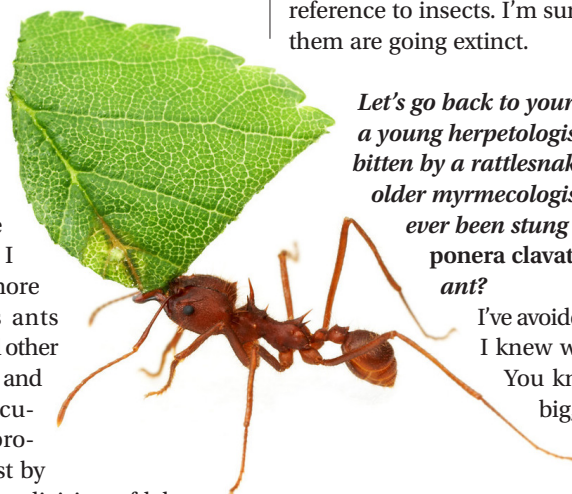
That's funny. It is quite an honor to have an insect named after you and I'm sure he was very appreciative.

Yeah, there is something about it...people,

the public is fascinated. There is a kind of immortality to it as long as we keep the binomial system alive.

I agree. Next question. With all of your studies on ants, can you narrow it down to what is the one most fascinating behavior you have observed in an ant species?

I have two. One was in *Cerapacys*. That's a genus. It's a widespread tropical group, but almost nothing was known about its behavior sixty years ago. Then, of all places, I found several species common on the island of New Caledonia. All the ones I found were new species, of course, but more than that, I actually was able to *watch* a *Cerapacys* colony while it was raiding a colony of *Pheidole* in New Caledonia. And I was able to describe its behavior as being like that of a primitive army ant—organizing that way and sending an army out to attack the colony *en masse* and that sort of thing. I was able to make, in the middle of a rain forest in New Caledonia, these observations, and that was a thrill to really get a first glimpse of what these ants do. My notes later became part of a paper I wrote on the evolutionary origin of army ant behavior. So that's one, but the other fascinating one is of course big, that's *Atta*—the leaf-cutting ants. I kept colonies in my laboratory for a number of years, in the course of which I worked out in more detail the ways ants collect leaves and other vegetable matter, and then most particularly how they process it in the nest by the most intricate division of labor.



Atta is one very exciting ant.

What are there, about 16,000 species of ants?

Fourteen thousand known. I am sure there are probably twice, or possibly three times, that many alive. We still are finding new species of ants right and left.

And time is short.

In many cases, it is.

I was thinking—so many ants, so little time.

True. Most people would never think that there is such a thing as an endangered ant. But, I worked on one in Sri Lanka. I went to the island nation because it is the last member of a whole subfamily of ants, the Aneuretinae, known to still be alive on the planet. The Aneuretinae were big stuff at the end of the Mesozoic. There were a large number of species and they included big ants. Now the entire subfamily is down to only one species. When I went to Sri Lanka in 1955, it was one of these adventures of the formative kind I described earlier. *Aneuretus simoni* was known from just two specimens that had been collected in the 1800's. I searched everywhere...up and down Sri Lanka and finally located colonies in rain forest near Ratnapura. And that's one that is threatened because its range has been shrinking from deforestation in Sri Lanka all this time. That is an entire *subfamily* of ants, a subfamily that could go extinct in our time.

Many of your writings lament the fact of habitat destruction that is occurring at a rapid rate.

Exactly. And I think we haven't had near enough research done on the status of the reference to insects. I'm sure that a lot of them are going extinct.

Let's go back to your boyhood. As a young herpetologist, you were bitten by a rattlesnake, but as an older myrmecologist, have you ever been stung by *Paraponera clavata*—the bullet ant?

I've avoided it. [Laughs.]

I knew what to avoid.

You know, they are big, clumsy ants.

I was in the

Atta texana, Texas (photo by Alex Wild).

field with my close collaborator Bert Hölldobler at the OTS [Organization for Tropical Studies] station La Selva in Costa Rica and we excavated a *Paraponera* nest. We were doing research on that ant. Bert held a bottle in one hand and started picking them up one after another and chucking them into the bottle. I said, "Bert, if one of those things stings you, we may have to carry you out of here. Aren't you a little afraid they might?" And he said, "No," he said, "the trick is just to be fast!" [Laughs.]

I confess, I picked one up in Costa Rica. Oh, you got stung!

Well, I saw this big black ant—growing up in Missouri—I thought it was harmless. When I picked her up, she stung me and immediately it felt like someone had smashed my thumb with a hammer.

Well, you're a *Paraponera* veteran then. You know what they call them in parts of South America? They call them the *dos semanas* ant—the two-week's ant. It takes two weeks to get over the sting.

I wanted to ask you if that was one of the experiences you wish you had, but apparently not.

No, sir. I'd like to brag too, and compete with you about my *Paraponera* sting, but I managed to avoid them, but I think I can claim...but maybe not now...I used to be able to claim that I have been stung and bitten by more kinds of ants than any other person. *Paraponera*, fortunately, is not one of them.

Well, what was your most painful encounter with an ant?

It was an insect—a mutillid wasp—that looks a lot like an ant. The encounter was one of my earliest memories. I could have been as young as three years old, and all I remember is that I was in this garden in somebody's backyard and I recall *vividly* this velvet ant—this mutillid running along—and my grabbing it and, of course, they have a horrific sting and it was so painful that to this day I remember the appearance of the garden, I remember the wasp, I remember how I felt. I don't remember anything else. I don't know where I was, I don't recall my mother or father at that time, or anything else, but *man*, I remember that garden and I remember that wasp. And I think that is a main function of insects being able to bite



Dasymutilla occidentalis, Illinois (photo by Alex Wild).

and sting you. The ones that are the best protected and most insouciant make sure you remember them. [Laughs.]

It certainly left a memory if you were three years old when it happened. The next question we've maybe danced around a little bit, but everyone has a favorite story to tell. What is a favorite memory of your career?

I've got a lot of them. I have had the great fortune of traveling all over the world, mostly just collecting and studying ants. I'll mention two to you and you can pick one.

I'll take both of them.

Okay, fine. William Mann—the one that had written the article on ants for *National Geographic* in 1934—had described how when he was a young guy he was in Cuba. And he had gone collecting ants up in the central mountains of Cuba. He knew of a number of ants there in the genus *Temnothorax*. In Cuba, some have metallic colors—metallic green, flashing green in the sunlight, metallic blue—and there is one that's metallic gold. I went to Cuba while I was still a graduate student in 1953, *thrilled* to be in the tropics for the first time, *excited* to be in Cuba, and I carried with me the vivid description Mann had in his 1934 article...

of being in the central mountain range of Cuba and turning over a rock, which was rather soft, and when the rock had broken into two pieces and there

in the middle, connected to the outside by a tunnel, was a chamber packed with metallic green ants, which he described as a new species. I had the chance to go to the same place while I was there in Cuba and I started turning rocks and...bless my soul, one of the rocks that I turned broke in two and there in the middle was one of those colonies of metallic ants. Do I have others? Yes, I have other stories, but that is the one that most immediately comes to mind in my earliest career as an entomologist.

You recently visited Africa, and specifically Mozambique, for the first time in 2011. What took you so long to venture to this continent?

It was mostly opportunity. I had the chance to be on all the other continents and collect and work, but I just never had the opportunity or particular...*urge* to visit Africa, by which we really mean when we are talking about entomology, sub-Saharan Africa. Then, several years ago, I was invited to come to Mozambique to the Gorongosa National Park. I've written an article on this in *National Geographic*.

I read it.

Oh, good. Okay. I was invited by an amazing man—Greg Carr—who had put together a great deal of wealth as an entrepreneur and innovator, and who had fallen in love with that park. Gorongosa was partly destroyed during the civil war in Mozambique. Greg set about, and made his life's work, when he was still a fairly young man, the restoration of Gorongosa National Park, and he is well on the way to doing just that. I have a book due in the spring of 2014 entitled *A Window on Eternity: Gorongosa National Park, Mozambique*. Carr wrote and asked me if I would like to come and advise him on science and education in national parks, and so on, and so it was a great opportunity even though I was 80 years old. [Laughs.] And so I went and Carr and his team have now developed a new center of science of teaching there, which, bless him, he has named after me, the aim of which will inaugurate a broad program of science education centered on Gorongosa. Recently, a



Temnothorax pergandei, Florida (photo by Alex Wild).



Formica pallidefulva, Florida (photo by M. E. Rice).

team of 30 specialists, including entomologists, began a thorough study of the park fauna under the direction of Piotr Naskrecki. That's a Polish Peter. He has written a book or two of his own. And his photographs are incredible. I don't know if you have seen them?

Yes sir, I have.

Well, then I don't need to say anymore. This book of mine is *richly* illustrated by Naskrecki photographs; a large percentage of which are insects. Together we feature the still little-known fauna of the park. I have been *delighted* to be able to add this experience. I ought to mention one other experience I had at 82. I decided I would return with a team where I had been 57 years earlier in New Caledonia and the New Hebrides; the New Hebrides being now the independent country of Vanuatu. We set out to make a first study of the ants of Vanuatu. I had not been able to do it 57 years earlier. I had visited, but I got ill and after a week I only had one day and couldn't do more than collect a few specimens. In 2011, with three others, I went to Vanuatu. It was a great adventure. I was able to climb on the eastern side of the big island of Santo, almost to the summit—admittedly with the help of a vehicle! That certainly was one of the great adventures of my life, which I enjoyed at the age of...82. I hope that you mention that.

I will.

It's an inspiration, the life...lesson from it I would suggest as the following. It's one you know well, and I think most real entomologists know well, and that is...entomology is a field, an endeavor, a calling, as I like to make it, that lasts a lifetime.

It never grows tiresome.

Never. Here I was scrambling around, the best I could, in the rain forest in Vanuatu, feeling the same things with the same level of excitement as I did when I was

a teenage boy or college student—the same emotions.

Well, we've been talking for about an hour and I don't want to take more of your time.

Oh, I've enjoyed talking to you. It's been great. You wind it up as you like.

I've got about six more questions.

Okay, let's go through them. I'll be a little less chatty unless I think of some...*really* good story I have to tell you.

Of all your professional recognitions, which one is the most humbling?

I never understood that expression that most people use. I am not humbled, but what I am is I'm given perspective. I already see myself as pretty much a small cog in the big picture. But I suppose that if you get a major award, that does broaden your perspective a bit. You uncomfortably place yourself in the company of people who have gotten the same award. And I guess that is humbling in a way, but I think broadening is the better word. I guess the closest to being truly humbled, and I hope you don't interpret this to mean I'm arrogant or narcissist, I'm just being honest, would be the latest one in June 2013 conferred by the National Geographic Society. It had its 125th anniversary and the Board gave several Hubbard Medals on that occasion. One went to Jim Cameron, the man who traveled alone to the bottom of the Mariana Trench in a tiny submersible. He also gave us *Avatar* and *Titanic*, and so on. I got the same medal. This amazed me. It's been given to only 40-odd people since 1906, and it includes the discoverers of the poles, the astronauts who actually walked on the moon—just being an astronaut doesn't cut it—Ernest Shackleton and people of that caliber, and now I guess I'm going to contradict myself. [Laughs.] I'm going to say I was humbled this time. Very proud and very humbled alike, by the Hubbard [Medal].

I read the account of Shackleton's survival in the book *Endurance and loved it.*

It's one of the great human stories of all time.

The next question is somewhat philosophical, but what is one question that you would like to answer, but which no one has ever asked you?

I've written a lot of books and talked to a lot of people and I don't think that there is any question I have thought of I haven't asked, if you know what I mean.

Yes sir.

So I'm not going to seize the opportunity to ask one now. I have talked with *so many* people in entomology and other fields about oh so many interesting things and they have covered most of the questions I would have the imagination to ask.

Yesterday during our brief telephone conversation when you called me, you began the conversation by saying, "If I'm fortunate enough to get to heaven, I'll tell St. Peter that I want my gravestone to read, "Edward O. Wilson—Entomologist".

Yes!

Do you think that epitaph will fully capture your contributions as a scientist?

I'll leave that for others, but that certainly captures the core of my life's commitment. I am *always* an entomologist and when I do reach that certain level of disability where I can't go on expeditions anymore or do serious writing, I hope I can still see and hear and be ready to go out into the field even if it is just a short distance, just to find and collect insects and enjoy entomology. When I read your very perceptive question, I thought of something that Camus, the French writer and philosopher, said.

Albert Camus.

Yes. And I am going to paraphrase it. I haven't looked up the exact quote recently, but this is pretty close to what he said that really expressed an important principle for me. "All of a man's work...is nothing but...the attempt...through the routes of art...to rediscover those images...in the presence of which his soul first opened." I'll repeat that. [Repeats quote.] And that's why I personally...feel happy with my life because I've managed to rediscover and share those images that so fired me up as a young boy.

That is a great point that you make. I think a lot of entomologists share it.

One of my last questions is about your legacy, which covers a wealth of entomology and certainly other fields of science. How would you like to be

remembered by others?

That's too difficult to answer because I've written all across a wide array of subjects, in entomology of course, but then also general evolutionary biology and even the relation of the humanities to science. Well, I did my best. I've not left a lot of carvings, or paintings, or sculptures, or poems. I just let others decide to read what I've written, and I'm not going to worry about it too much. I guess that's all I can say about it.

Okay, that's good enough, "I did my best."

[Hearty laughter.] Okay.

For the next question, I contacted one of your former students—Mark Moffett—to gain a little insight to you as a person. Obviously, you are a prodigious writer as evidenced by your upcoming 30th book. Legend has it that you compose your thoughts in longhand, written out on legal pads, and that one Friday afternoon you asked your administrative assistant if she thought the bundle of 10 legal pads you were holding would be sufficient for a week-end of composition.

[Laughs.]

Is that true?

That's a little much, but it's possible. I think one probably would have been enough, or two, but the point is that's correct for a special reason. I've had a superb assistant, and she's worth mentioning with praise. Kathleen Horton. She's been working with me for 48 years. And Kathy is so good. She is so thoroughly familiar with just about everybody in the field. She knows all of the entomologists and a lot of entomology and related subjects, and she's superb at creating manuscripts for publication, and the Internet, and so on, to the extent that it has been possible for me personally to remain in a primitive technology, writing longhand on a yellow-lined legal pad. And I like the tactile sense, you know, the sliding and random touch, all that goes with using a pen as opposed to tapping immobile objects with fingertips. I enjoy scratching out and writing on top and flipping through the pages, and all of that. I believe some people share this visceral feeling with me, but my reason for staying with it so long is basically laziness.

My last question for you Ed, is that legend has it that decades after departing

Alabama, you are still considered to be a southern gentleman and in spite of some of your antagonists at Harvard University and other places, you've never lost your temper or used foul language in disagreement. Is that true?

That is, I think...yes, that is true. [Laughs.] I am still an Alabamian at heart. In fact, you know I do try to behave that way. I admit I get angry and I have had some pretty absurd opponents, too. And that's as strong as I will speak of them right now. [Laughs.] At any rate, I've recently re-established my links to the University of Alabama, helping to set up a new fellowship program in biodiversity. And I am working with others to create the first major National Park on the Gulf Coast, at Mobile.

Really?

Oh, I haven't forgotten my roots; bad idea for anyone to do that—any place, any time.

That's incredible. I had not heard of the proposed National Park in Alabama.

Yeah, it's not a secret anymore, it's become an active campaign and I think it will go through. It's planned to include up to 450,000 acres of floodplains, forest, and aquatic wilderness, and low hills with deep ravines, and a very rich fauna and flora. I'm sure that if it becomes a reality, the park will have the largest number of plants and animal species—the largest biodiversity of any national park in America.

Well, it's clear, Ed, that you haven't slowed down too much in your ninth decade of life. It has been an incredible career that many people admire. I thank you very much for your willingness to take an hour out of your time to share your entomological thoughts with me.

My pleasure. My honor. And I think that I'm hoping that speaking of the way we have together about the field we love, I particularly hope we can encourage young people. I keep telling them that entomology is the king of biodiversity—the big banana, the mammoth—entomology. A great career awaits, and a lifetime of pleasure. Go into it if you have the slightest inclination.

Well, that's a great quote to end on...the king of biodiversity is entomology.

I appreciate it. I've enjoyed speaking with you. Maybe we'll meet sometime face to face.

Well, we actually have, Ed. You were at Iowa State University in the mid '90s.

Yeah, now that you remind me, I was.

I plopped my ten-pound copy of The Ants down in front of you after the lecture and you were shocked that someone had actually purchased that book.

Bert Hölldobler and I are grateful to every purchaser of the book. Thank you again. Incidentally, it's the only book of science to win a Pulitzer.

You drew a little picture of an ant and wrote "Warm regards, Ed Wilson."

That's great.

Thank you Ed and Godspeed, and I hope you enjoy your next trip to Mozambique.

I wish you the same, and maybe even to include yourself to a trip to Vanuatu or Mozambique or some equivalent.

I appreciate the invitation. I'll share that with my wife.

[Laughs.]

Have a good day.

I'm actually grateful to have this opportunity. Bye-bye.

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Additional Reading

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