
Is Eating Plants Paleo?

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Tony: Hey Paleo Nation, I'm Tony Federico and you're listening to Paleo Magazine Radio, the official podcast of the original Paleo Lifestyle publication.

After the Ancestral Health Symposium ended and the closing statements were done, one of the show organizers, Jay Brett Smith approached me and said that he had organized an impromptu meeting outside the conference hall and he wanted me to bring my audio recorder. Brett told me that what was about to be said was going to rock the paleo world and he assured me that the assembled group represented a rare gathering of thinkers on the subject of plants.

Despite the conventional wisdom that we need to eat a wide variety of fruits and vegetables, this group's controversial position is that fruits and vegetables are overrated, unnecessary, and maybe even toxic. According to this eclectic group of PhD's, authors, self-experimenters, and more, plants have been engaging in chemical warfare, which of course, sounds like dirty tactics until you consider that they lack the ability to scurry away or fight back with tooth and claw like animals do. So without these things, they've had to develop an entire arsenal of insidious chemicals to ward off predators like us. I've never really questioned the benefits of eating fruits and vegetables, but the evidence presented by this panel was compelling and certainly dims the health halo surrounding plant-based diets.

But, before we get to my conversation with AHS program chairman Jay Brett Smith, naturopathic medical student Guillermo Ruiz, modern carnivore L. Amber O'Hearn, evolutionary biologist George Diggs, internet entrepreneur and multi-disciplinary skeptic Nick Mailer, and Dutch doctor Esther Nederhof, we're going to share a quick message from the sponsor of today's show, Morocco Method, makers of the paleo-friendly 5 elements line of hair care.

Earlier this year, we had Anthony Morrocco, the founder of Morrocco Method, on our show. Anthony and I discussed how his career as a hairstylist led him to develop an all-natural hair care line and how you shouldn't have to sacrifice your health in order to have great hair. We also talked about some truly paleo hair care techniques.

Anthony: For thousands of years, we washed our hair and we took care of our scalp, and we certainly used oils in our skin and hair for moisturizers. For example, I'm Italian, so in Italy for thousands of years, they've used olive oil. The olive oil is from the olive, from the tree, from an actual part of the nature. Then say in Africa, people were using, they would take bananas and smash them and put them in their scalp and hair and moisturize their hair. Hawaii they were using coconut oil, South America be doing avocado, and then the Alaskans probably would be doing whale blubber.

Tony: While you certainly could make your own hair care products from avocado, coconut, banana, and whale blubber, you might end up attracting some unwanted attention in the process. A better choice would be to take advantage of the decades of research Anthony has put into his Morocco Method line. It's entirely raw, vegan, gluten free hair care products that include their award-winning 5 element shampoo collection. Each shampoo is based on one of the 5 essential elements: air, earth, water, fire, and ether, and each of these special formulas work together to provide your hair with the nutrients it needs to be healthy, shiny, clean, and manageable. Go to morroccomethod.com today and use coupon code Paleo Hair to save 15% off your next order.

All right folks, it's time to skip the salad bar, Paleo Magazine Radio starts now.

All right everybody, I'm Tony Federico and we're here at the finale of the 2016 Ancestral Health Symposium. We're just going to wrap up with one final round table discussion and I'm going to allow J. Brett Smith, one of the organizers of AHS 2016 to kick things off.

J. Brett: Yeah, just in short, I was just standing around the other day and these brilliant thinkers about plant biology were just chatting. I said, "You know, we should record this." Yeah, most people think of plants as being friendly, it's nice to see them in our gardens and they're pretty and they smell nice, and animals, it seems gross to eat them and stuff, but from an evolutionary standpoint, animals are what are called unitary organisms. It means they're in little distinct chunks, whereas plants are modular, generally. With the exception of ripe fruit, nothing in the organic world really wants to be eaten. They take measures against it. Animals scurry away or they climb up trees or they'll scratch or they'll bite back or they are covered in defensive armor, or they have venoms or obnoxious chemicals. But, once you've killed an animal, it's pretty safe to think that it's going to be safe to eat it. Whereas plants, since they can't scurry away, resort to chemical warfare.

Guillermo: My name is Guillermo Ruiz and I'm a naturopathic student at the Southwest College of Naturopathic Medicine. The reason I'm here is because I'm presenting on carnivorous plants. Actually Darwin said that carnivorous plants are the most wonderful plants in the world.

Now, what's interesting about carnivorous plants is that we kind of followed the evolutionary tree of carnivorous plants and this carnivorous plants create endogenous antivirals because they are accepting vectors that might bring different viruses into the plant, and these plants can't just get up and go to the doctor. So, what they're doing is they're creating this endogenous chemicals to fight different viruses.

Then this idea that maybe plants are evolving for us, because of medicinals and all this botanical medicines, it's kind of erroneous. They're evolving for themselves, that we can take advantage of this insecticides or this antivirals or antibacterials, it's phenomenal. So there is that. We can take these chemicals and translate into our health and then what's fascinating is that any time we try to splice this plant away and find that exact molecule that's actually having this effect on the viruses, these molecules are actually really toxic to ourselves.

Amber: Hi, I'm Amber O'Hearn. I have found that my health drastically improved when I went from a simply very low carb diet to a diet that contained no plants. At first I thought that that health improvement happened in spite of not having plants in my diet, and I eventually came to conclude that it's actually because I don't have plants in my diet. I went looking for those elusive benefits.

We're recommended that we eat plants at an enormous amount and so you would think there is some kind of evidence that this was based on, but there are actually no real trials showing that plants give benefits. You can find epidemiological studies, you can find studies where they've asked you to add more plants but they also asked you to exercise more or to eat less bread, so there are always confounders.

I found one study that they wanted to show an antioxidant property of colorful, leafy kinds of antioxidant rich vegetables. They had one arm eat those plants and the other arm was confined to only some I think carrots and potatoes, and they actually found that those eating the antioxidants had the worst antioxidant status.

I completely agree that plants did not evolve to want to be eaten. They are literally full of insecticides, they don't want their bodies eaten and they are full of minute toxins. We used to call them phytochemicals. Now we call them phytonutrients as if there were some benefit to them and it's implying that there's something that we need, but in general, if you isolate those compounds, you'll find that they are actually toxins and they're just as likely to develop into a drug that can help us in some way as to develop into something that can harm us, and just eating the minute amounts that you would get in plants isn't likely to cure your cancer, for example.

Nick: Hi, I'm Nick Mailer and I was talking today about paleo puritanism. It is interesting that if we look back through the ages, there has always been an emphasis on plants and how they represent a return to Eden, a return to a kind of innocence that we've lost. People have created a narrative overtime that plants are somehow going to be associated with some sort of saving us, with a capital 'S.'

As I mentioned in my talk today, we started eating meat literally after the fall. Meat is inherently in our society associated with sin and carnality and all the other associated words. Add to that sumptuary laws where people were told not to eat meat and were told that was good for them because the nobility wished to restrict it for themselves and you begin to get a very interesting pattern about why it is that we are so exhorted to eat vegetables today. Except they're not called vegetables, are they? They're called fruits and vegetables.

I have asked every dietitian. I've said, "Let me assume that what you say about vegetables is true and they have explicit healthful benefits, whether they are homeotic or otherwise. Can you name one property other than a high fructose load that a piece of fruit will give me that a bunch of vegetables won't?" Nobody has ever been able to answer that question, except to say the fructose is useful because it bribes children into eating these items which we want them to eat and they don't really want to eat vegetables, so the high fructose load is doing its job in acting as a bribe.

I would like to think that vegetables are helpful. That's my base, that was my base assumption. But I have to be honest to the truth and I'm finding it very difficult to find independent data that proves it. I can find a lot of mood music and a lot of wishful thinking and a huge amount of confounded epidemiology, but when I look for anything more, I see very under-powered tests on the anthocyanins in blueberries and so on, and when you scale that out to human scales, that's nothing.

They talk about antioxidants, endogenous antioxidants are where it's at, exogenous antioxidants are pouring a thimbleful either onto a desert or an ocean. Both seem to be irrelevant to me. So if somebody can persuade me today, because I love vegetables and I love fruit, that I am doing myself some explicit good in eating them, I would be delighted.

Esther:

My name is Esther Nederhof. I work as a researcher in the Netherlands. I think there's 2 things we should do in this discussion. First, a plant is not just a plant. A plant has different parts. A plant has roots which are underground, they're much harder to get actually, so the plant will not defend its roots as vigorously as it will defend its stem, for example, and its stem is its main structure, so it really needs the stem to be able to grow. The leaves, the plant has quite a bit more of, so it probably doesn't mind if you eat a few leaves, so probably they are less toxic, and the fruits the plant wants to be eaten, but not the seeds. Well, wanting is of course a dangerous word when you talk about plants, but the seeds, they should not be digested. They are, I think, the fullest of anti-nutrients.

Then there's another thing we could look at and that is at human character. Humans are inherently lazy, I think. Oh, not only humans, I think that all animals.

So, what's easier, eat a plant that cannot run away, or catch an animal? I think in times where let's say edible plant foods like fruits are so abundant that we don't need to catch an animal to go hunting, we would.

George: My name is George Diggs, I'm an evolutionary plant biologist. I just want to echo some of the other voices in the group that plants certainly aren't always our friends. There's a well-developed plant defense literature, a tremendous amount of research over the past several decades on the chemical toxins in plants. Some of them are quite deadly and literally several bites can be a toxic, potentially fatal dose to humans. Compounds like strychnine and nicotine and a variety of things like this. We know that, in many cases, these things are defending the plants, because if you damage the plant, genes will be turned on to upregulate the amount of toxins. It's clear that many plants are defending themselves chemically.

Some plants are probably much worse for us, even agricultural plants than others. In the modern world, these are questions that are pretty important to answer. We may be able to eat some plants with minimal harm, some may even be beneficial, we don't know, the research all hasn't been done, and some may be very harmful.

As you just said ...

Esther: Esther.

George: As Esther just said, there's certain organs where you would anticipate, without doing experiments, you would anticipate more toxins; the seeds, the babies of the plant, you would expect plants to really defend those tissues quite well. It's a interesting topic and there's so much to learn that we're just kind of peeking in the door, but I think the evolutionary perspective, that all of the people in the discussion have contributed that plants are not doing something for us, they're doing things for themselves and they have to defend themselves. I think that's a critical idea that is well worth sharing to a much wider audience.

Tony: With the understanding that plants are trying to protect themselves and defend themselves, to what extent do you think that human strategies such as cooking and different preparation methods overcome those natural plant defense mechanisms, or another strategy would be domestication and breeding of plants. I guess the point would be how much do wild plants relate or compare to the domesticated process cooked, chopped, boiled plants that we tend to eat?

If I were to go out and just start randomly eating some of the green things around me, I'm sure I probably would get pretty sick, but we have a very different selection of species that are themselves not really indicative of their wild forms in

the average human grocery store, so I would like to hear what you have to say about that.

J. Brett: Tony Federico, author of "Paleo Grilling" you probably know about Richard Wrangham's work "Catching Fire." Richard Wrangham's a evolutionary anthropologist or biologist at Harvard I think.

Tony: Primatologist actually.

J. Brett: Primatologist at Harvard, yeah. Apparently reading his book "Catching Fire," I highly recommend it to everybody in the Ancestral Health community, there's wide variation in opinion about how long cooking has been around. Estimates are like a couple hundred thousands of years to up to potentially, he argues, the transition from Australopithecus to Homo [inaudible 16:35] when our rib cage became less flared, we had more streamlined bodies which would happen if you have a more predatory-like gut. He argues that it wasn't just a shift in meat, but it was the availability of fire to ... Actually that's mainly work on underground storage organs, tubers, which are like pretty calorically dense. The cooking is another [inaudible 17:04] for him is at least that would be, possibly be able to break down some of these defensive compounds and things like that.

Guillermo: Guillermo here. I have a little bit of knowledge about botanical medicine and this plants are creating endogenous antibacterials and antivirals. What sometimes we leave out it's the preparation of this medicine is very important. For example, in the astragalus plant which immunomodulates, it has immunomodulatory function, if you take astragalus, it's in the root, the root is the medicine. But what we found out is that root has bacteria in the root and if you strip the bacteria from the root and you prepare the medicine you don't have that immune response. That's because that bacteria's LPS actually is going inside your system and it's creating that immune response.

Another example, we have things like garlic which is antibacterial, but in order for the garlic to be antibacterial you have to mush it and then oxidize it, so there's a preparation. This idea of using plants as a tool to fight infections of viruses is very important, and also remember that this plants, this endogenous substances are indiscriminate. If you take a lot of this antibacterials or antimicrobials you might be affecting other good bacteria in your system. This thought or this idea that plants are just completely benevolent or this substance is natural so it should be good for me regardless, it's a very dangerous one. We should be always under the care of a practitioner and not just go to our health food store and ask the clerk, "Hey, what should I take that's natural for this virus or for this cold?"

George: It turns out that many cultivated plants have been selected through artificial selection to have lower toxin levels, particularly things that we can sense through

our taste or taste system. But kind of a more interesting question is let's say something has had some of the most bitter compounds taken out so that we could eat them. Does that necessarily mean it's going to be good for us? What other compounds are having a longer range effect? We don't see it. It would be very difficult for early agriculturalists or even modern agriculturists to really select for some things out if the effect isn't obvious on a time scale that's easy to deal with.

Plants are so complex metabolically, rice having way more genes than a human for instance, that we really don't know what all the compounds are doing. I think cases like you've mentioned of people sometimes do better if they eliminate a lot of plants, that's very interesting and that's a kind of study that we should follow up on, try to figure why that's the case, why does it work better for some people than others, and are there metabolic differences in people. But we do see a reduction in some toxins in domesticated plants. You can't eat the wild ancestor of pumpkins or squash for instance. They're just too bitter. They're horrifyingly bitter. But does that mean that other things that you can eat are good for you? We don't know.

Nick: Hi, Nick here. I think it's telling that we have to work very hard to get our children to eat vegetables. I certainly have done that with my daughter. Whether I've been stupid to do that, I don't know. We'll find out. They'll take a bit of broccoli and they'll spit it out because they, evolutionary they detect the bitter molecules that are still there, and they rightly spit this thing out because it probably is going to be worse for their health than better. Better to be safe than sorry. I think that's a very telling evolutionary response.

The other discussion that people have about vegetables and the one thing that people try to use to say, okay, well, we really don't know what these phytochemicals are doing, we don't, there's not much nutritive with regard to macronutrients in the average green vegetable, so let's find something else for them to do. What we found them to do is to provide fiber. We then come to the question of, what is the role of the fiber in the human diet? Now, sadly proper randomized controlled trails with regards to fiber, supplementation, and even epidemiological studies have shown that fiber isn't the miracle that we thought it was and that the data are very ambiguous to say the least.

So the next thing that people tried to do to save the reputation of the plant as a useful friend was to say, "Okay, let's go into the gut." Now we've got the gut biome, because fiber on its own was useless. Let's give fiber something to do, and then the gut biome happened. What I see is this, it's teleological reasoning, which means that you have your conclusion and you're working to create evidence to support it. When you ever have teleological reasoning that suggests that you've got some sort of faith based process going on and that's what worries me a bit.

Amber: Regarding the gut biome I think that there's a lot of excitement as there should be in the community about the role that microbiome plays in different signaling, how it's connected to our mood and all kinds of different processes. However, I don't think that we really know how that's happening. In fact, if you look at animals who are germ free who have been raised without the normal gut bacteria that their counterparts in the wild would have, they often show actually a lot more healthy profiles. They're more energetic, they tend to be less fat, they often have better measures of mood in so far as we can tell, and yet scientists still like to say that they must have compromised energy and some kind of problem going on. They live longer too. It's not clear to me that more bacteria is good or that feeding bacteria in your gut the way that scientists have been trying to do is necessarily a healthful thing.

I wanted to address the point that Brett brought up about Wrangham's hypothesis about fire. In the course of our evolution if you don't take fire into account the plant simply could no longer provide the amount of calories that we needed because brains are so expensive to run. The only way that you can really provide a role for plants in the human diet is to say that you could get calories from them, which could only happen if fire was there. I think that's the driving goal in Wrangham's hypothesis, is to make a role for those plants, because otherwise they're way too fibrous. If you cook them, you can get a lot more calories because you can extract out sugar. What he's arguing basically is you can get sugar from those tubers. Whether or not we want to advocate more sugar in our diet, based on an evolutionary theory, seems unclear to me.

Esther: I think we should come back to the character of humans, that humans are inherently lazy and if you can derive at least some of your calories from plants that do not run away, that might be easier than go hunt for animals. But that does not show that plants are a necessary component of a healthy diet. Yeah, it can be easy to cook and not have to go out for hunting, but I think if you look at the let's say the nutrients that our brain needs and that's the essential component of being a human I think, having a large brain, then the nutrient profile of especially fish but also other animals is much more closer to what is in our brain than the nutrient profile of any plant that there's around.

So I find it very hard to believe that we really evolved our large brains on a plant based diet. I think it must have been an animal based diet or it must maybe even have been a sea food based diet. Plants can have been a perfect addition to that, especially if we would've been able to cook the roots and if there were fruits around, but I don't think they are mandatory in a healthy diet.

J. Brett: Yeah, this is Brett again. These are all interesting questions, but for the general public, I mean, I sort of didn't understand this until I started to learn about the

evolutionary strategies and arms races that have been going on iteratively between plants and their parasites basically, which are all of us, and as well birds, insects, everything else. It's important to keep in mind that, yeah, plants don't want to be eaten, they're not just here to be offered up. But too a sophisticated understanding of this, you have to distinguish between what part of the plant, is it the root structure, is it the stems, the structure components, stems, leaves, or the berries?

I guess what really maybe we think that this would be a great discussion is listen to you guys talk about berries. Berries are the only, as far as I know, the only thing in the organic world that is not defending itself I guess from being eaten. In fact, is like the plant's way of essentially bribing or tricking animals into spreading their seeds and there's a conflict there. The plant doesn't want to give the ... Just like a sales transaction. You don't want to give the customer too much value, but the customer wants to get value, so there's like sort of a [inaudible 27:00] point. The plant wants to give you just enough to get you to eat a bunch of it, but not too much. We're told that berries are just loaded in all these "phytonutrients" and they taste good, but would we really expect them to squander these phytonutrients, or if they could use them for themselves and just trick us using sweetness or something.

Nick: Well, I mean, part of the points with berries is first of all, again, we're being very anthropogenic. Most plants do not create berries for us. They primarily create it for birds and various other animals. The plant doesn't really care how we react to the berries most of the time. If you want to know whether a berry is good for you, be a bird and ask that question. What happens to us is purely incidental.

What we do know about berries though is that they have a lot of fructose in them, and what we know about fructose is it bypasses our satiation mechanism, which is very useful for us and very useful for the plant. The reason it's very useful for the plant is it means that we will glut those berries as much as we can, even if we have other things to eat, and it's very useful for us because for that 2 weeks of the year we get to have that glut, we get to put all that fat into our liver and we get to burn it in winter. It is as Esther says a lazy and cheap way of doing things. The problem is of course when you have mangos flown in every day to Costco and you get to eat them 365 days a year, there is no winter, there is no burning that fat, and there is no satiation.

People have often said to me and have said generally, "Okay, you shouldn't drink orange juice because there is no satiation from it. But of course you couldn't eat a whole bag of fruit because of the fiber." Really? In my previous life I could eat 2 or 3 bags of oranges quite happily and still have room for more. I could eat a kilogram of grapes and not even know I'd done that. I certainly felt that fiber did not mediate the satiation of the fructo- mediate say for satiation. And indeed

when people like Lustig say fruit is fine, even the fructose is of the devil, he will say things like, "Don't worry, the fiber will mediate." When I've looked for studies that show this, they're very weak or they show that there is actually no mediation at all. I have fear that that's a fairytale that people like Lustig had to tell in order to be able to allow us to still give fruit the past that they needed in order for his message to be allowed to go out.

Guillermo: Guillermo here, and then it gets even more scary than that, because now we can take fructose and then scientists saying people that are smarter, the people gathered here can come up with ideas on how to push this fructose. Because for example, it's not glycemic. You know the glycemic effect of fructose. Well, fructose is not glucose. Glucose has a glycemic effect. Fructose does not. Now they start marketing high fructose corn syrup as a low glycemic thing and now you have a way of pushing this, this message, again, it's natural, it's fructose, it comes from fruit, and now we have these livers are full of non-alcoholic fatty liver disease. We can use all these strategies and these evolutionary pathways no satiation to push product, to increase sales, or to take something that was originally created as a lubricant, high fructose corn syrup was a lubricant, and how can we market this in another way and make more profits. But then, how can we use these means or these strategies to maybe go back and change this paradigm and maybe reverse this idea is that maybe if it's natural it's not completely harmless.

Nick: There was some initial cognitive dizziness because fructose is supposed to be fruit sugar and fruit is supposed to be good for us, so they had to invent the fiber myth to make up for that. But what I think is more worrying is where you get these so called paleo bars, crushed full of dates, but that's okay because that's magical fructose and that won't harm us in the way that high fructose corn syrup will. When you look at the actual sugar content of those bars, they are the same as any bit of candy. The tiny, tiny bit of wrapper around the date is not going to mediate for that. Similarly, we look, "Oh, it's raw maple syrup. It's raw coconut sugar." These are products of wishful thinking and the appeal to nature fallacy ...

Male: Agave syrup.

Nick: And agave syrup is worse than high fructose corn syrup, and yet you go to any vegan café and it is the darling. We need to deal with this problem as a community and we need to stop giving these appeal to nature passes to these products that are being sold to us, because there is nothing better about having a huge number of crushed up bits of dried fruit in something with regard to the sugar load we're getting, and we need to start speaking honestly about that.

George: This is George. A term that I think is good to communicate about this idea is the idea of a health halo. Some of these foods have in essence like juice a health halo

around them, but if you actually look at the sugar content of a glass of say apple juice and the sugar content of a same size glass of Coca Cola you find that there's precious little difference, if any difference.

Nick: Sometimes there's more.

George: Sometimes more in juices. But we're told they're very healthy. It's one of the myths that we have in our society. Of course it's natural, of course it must be good. But when you actually look at the data, you analyze these things chemically and you see that that's unfortunately for many people who like juice not the case.

Guillermo: Humans, we're amazing. We can thrive. We can survive on almost any diet. We can survive in many different diets. We can eat a fruitarian diet or we can eat a paleo diet and we're going to survive. We just heard Dr. [Eatstock 32:54] on Egyptians. They built pyramids with wheat and that's amazing because we're really resilient. But being able, the diet just needs to carry us to the point where we can mate and have children. Whatever happens after that doesn't matter. That lets us evolve and lets us continue.

Nick: But I don't stop eating vegetables. In fact, I eat more of them now that I think they're junk food, because I know, and it sounds funny. I genuinely, when I used to think that vegetables were very healthy and I needed to eat them as if they were medicine, I kind of resented it because there's this kind of an anti, anti-hedonic pathway or something. Now when I cut up carrots and I think that they're little discs of candy, I much enjoy them and they taste very sweet because I don't eat a lot of sweet things, so very much I have a big bowl of strawberries and cream. I don't think the strawberries are going to be the solution to my eternal salvation. I just think that they're natural candy and I love them for that. They are probably better than eating boiled sweets so I eat them because they have a lot less of the fructose in them than in sweets and in other fruits.

I enjoy vegetables very much. I enjoy them as fat carriers. I enjoy them when they're roasted in the juices of meat. I do obviously because I'm saying I do not enjoy vegetables very lightly steamed and eaten on their own, because that's ridiculous.

Amber: Here's what I would say about whether or not we should stop eating plants. I think that there may be benefits especially in some people who may tolerate them less than others, and the only way to find that out is to try it. There's very little risk. It's certainly perfectly safe to stop eating vegetables. So why not just stop eating plants for say 3 weeks, 30 days, and just see how you feel and then take that as a basis for your next decision.

George: If you actually look at native peoples around the world, have been some really good research studies. One of the speakers at our conference today named Ian Spreadbury gave an excellent talk where he looked at the form things are taking in. There are cultures that have eaten very high percentages of plant material as their nutrition, and they're healthy. But in this case they eat the real plant, they don't eat the plant that's been processed. His hypothesis has to do with disturbances in the microbiome.

This is an interesting hypothesis, a very interesting study. We don't at this point really know what will it turn out because fortunately the Ancestral Health movement is looking into this door, but we're literally only peaking in. 50 years from now, will it turn out that we found that eating an all meat diet is the healthiest thing, like turn out that having some plants in the diet, certain types of plants will be helpful? At this point testing, seeing what works for an individual person. People are very, very different. We have all kinds of gene polymorphisms. One person is not exactly the same as the next. We've also had very different histories, how our bodies have been handled for years and years. There's so many things that we don't know, but trying various things I think is a good approach for yourself.

Tony: The final question for today is, if someone heard you speak and liked what you are saying and is interested in the subject of plants and their biology and whether we should or shouldn't eat them, how can people find out more about you and what you do?

Guillermo: Guillermo Ruiz. You can follow me @ 3030strong.com. That's my website and Twitter and Instagram on all the social media.

George: You can find me by just googling my name, George Diggs, and my webpage apparently not many diggses, and my name will pop up and a web page and you can go from there.

Nick: I am Nick and my Twitter profile @bokkiedog, @ B-O-K-K-I-E-D-O-G. I've got a personal blog which I sometimes rant on called skimmed.cream.org.

Amber: This is Amber. My Twitter handle is ketoticorg, K-E-T-O-T-I-C-O-R-G, and you can also please visit my blog which is Empirica, E-M-P-I-R-I.C-A.

J. Brett: Yeah, this is Brett. I worked for 10 years as a fishery scientist with the Geological Survey of Alabama, but my real passion was evolutionary theory. Perhaps you can tell. I'm currently in sort of a career transition and I'm in the market for a PhD program. If anybody is interested and I'll take you on a pretty curious, pretty [inaudible 37:55] doctoral student who's not quite a spring chicken, they can reach me at ... Basically I have a Facebook page and just my email. Facebook is

facebook.com/jbrettsmith, Brett with 2 Ts, and then the email j.brett.smith@gmail.

Esther: You should be able to find me at esthernederhof.wordpress.com. The only thing is that you'd have to learn Deutsch too. Or maybe Google Translate can help you a little bit to understand. I'll post a PDF of my poster there anyways.

Tony: That was J. Brett Smith, Guillermo Ruiz, L. Amber O'Hearn, Nick Mailer, Esther Nederhof, and George Diggs. You can find the links to the websites and social media accounts of our guests by going to paleomagonline.com for the show notes.

But as I mentioned last week, part of paleomagonline.com including our podcast is now only accessible if you're a subscriber to Paleo Magazine. As much as we would like to provide all this information for free, the economic reality is that we need resources to make the paleo message come to life. I hope you show your support by subscribing to Paleo Magazine. If you chose not to however, that's okay with us too. We're happy you're here and learning more about paleo.

You can still find every episode of Paleo Magazine Radio for free on iTunes and Stitcher. Next week show will be a paleo radio byte with paleo fitness cover model and fellow Floridian Jamie [Brazey 39:22]. Here's a preview.

Jamie: With most teenagers what you see the most of is your skin, especially being a girl, you're worried about your skin and breakouts. I was experiencing all those things, and I exercised a lot but I didn't apply the diet that should be going along with it. I thought, "Well, I can eat what I want and just work out all the time." That obviously isn't the case. As I got older, when me and my husband met, we decided to try out a new method together because we were into fitness together and we wanted to feel better.

Tony: To hear more about Jamie's story you'll have to tune in to next week's show. To make sure you don't miss it, just hit the subscribe button on our Paleo Magazine Radio iTunes page or favorite us on Stitcher. That way you'll get all new episodes automatically added to your podcast favorites list. Of course ratings and reviews are always welcome and much appreciated.

I like to once again thank the sponsor of today's show Morrocco Method, their shampoos and conditioners make your hair look great, but one of my favorite ways to use their products is to shave. I hate all the chemical laden shaving creams sold at the grocery store, but the Morrocco Method pearl cream rinses perfect. It makes for a smooth shave, soft skin, and it's completely paleo friendly.

Paleo Magazine Radio it's brought to you by the Paleo Media Group. Our show music features the song "Light it Up" by Morgan Heritage and Jo Mersa Marley. Paleo Magazine Radio is produced by me and on behalf of everyone at Paleo Magazine thank you for listening.