

Historical Overview and Basic Facts Involved in the Sasquatch or Bigfoot Phenomenon

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Abstract—I describe six decades of increasing interest in and knowledge about Bigfoot or sasquatch, and efforts to gain scientific attention. Exploiting my massive data-base, I offer some conclusions about these creatures and comments on some of the objections that have been raised.

From personal knowledge of Roger Patterson, I contradicts the notion that the Patterson film was faked. And from direct first-hand knowledge and by citing dates, I expose the fallacy of recent media accounts claiming that a certain Ray Wallace started the whole thing by faking some footprints.

Keywords: Bigfoot—sasquatch

Some of you may have noticed that I am not a young man. Once upon a time I was. It is more than 60 years since I first encountered information about what is now known as Bigfoot, 47 years since I began to investigate the phenomenon, and about 46 years since I began a campaign to have it subjected to scientific exploration.

On the face of it, this organization and this subject should be a perfect fit. I doubt that there exists any anomaly of as much potential scientific importance that has been so determinedly ignored by the world of science. I understand, however, that most of you are not likely to have paid any attention to it, so with apologies to those who have I am going to begin at the beginning.

In British Columbia, where I grew up, stories about hairy forest giants, known there as sasquatch, have been widely publicized since the 1920s. I don't remember a time when I was not aware of them, but like most city dwellers I considered them to be tall tales, and indeed to some extent they were. The picture painted of the sasquatch in those days was of a race of giant Indians, hairy, but in some depictions only in the fashion of the hippies of a later generation. They were said to live in villages, speak Indian languages, communicate with signal fires on the mountains, wrestle with grizzly bears, and kidnap Indian girls for nefarious purposes.

Then, after a decade of experience on city newspapers, I bought a small weekly paper in the area where many of the sasquatch stories originated, and in 1957 I was quite abruptly confronted with the fact that people I had come to respect took the sasquatch very seriously indeed. The stories I heard then were

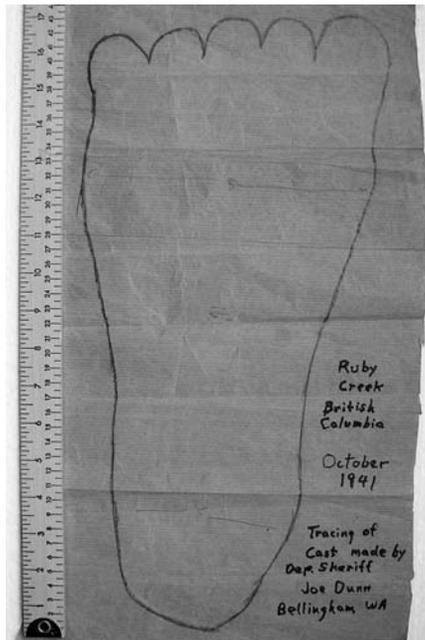


Fig. 1. Tracing of deputy's cast from Bellingham, WA, 1941.

not myths or legends, but first-hand accounts of inspecting giant, human-like tracks, or close observations of huge, bipedal, hair-covered creatures that looked more like upright apes than humans. In one case I was told that a deputy sheriff from Bellingham, Washington had cast one print from a series of 16-inch bipedal tracks that had been made by something so heavy that it crushed potatoes in the ground.

At the time I thought that was surely stretching the truth, and perhaps it was, but I have since read that large bears can do the same. In any case it turned out that the deputy was real, although he had since died and the cast had been broken. His son gave me a tracing of the cast, and told me that his father had researched sasquatch reports for years and had accumulated a great deal of material, but they had not kept it. Note that the tracing, which is on display here, has been in my possession since 1957, the year before a man named Ray Wallace supposedly started making all the Bigfoot tracks in the world, and that the 16-inch footprints had been observed, investigated, measured, and cast in 1941, sixteen years earlier (Figure 1).

Further investigation quickly established that a number of people had done considerable research into the subject in the past, although none were doing so currently, and that there had been some very well-publicized incidents in British Columbia around the end of the 19th century, and in Washington state in 1924.

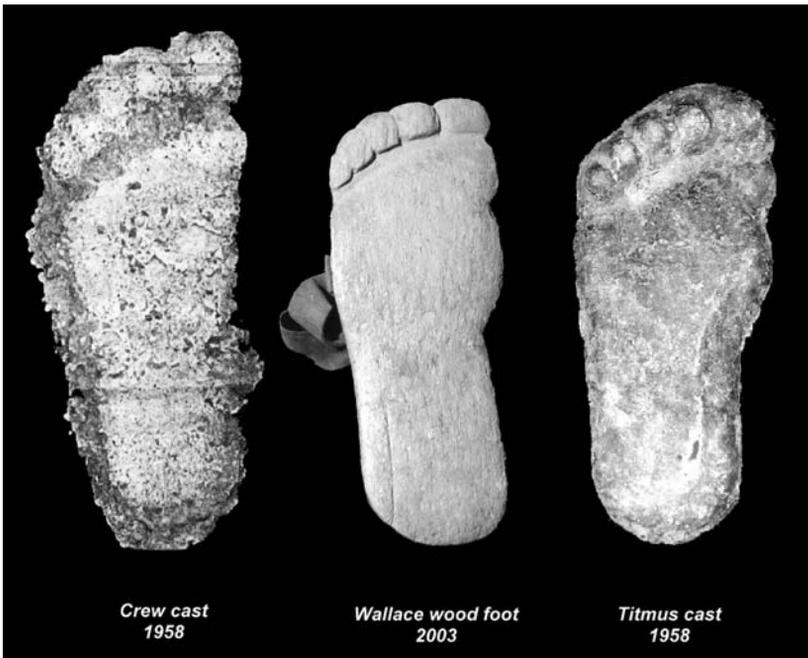


Fig. 2. Casts from Bluff Creek valley, 1958.

In the fall of 1958, when newspapers pictured a cast of a 16-inch footprint from a dirt road under construction in the Bluff Creek valley in northwest California, I drove there to see for myself. All the recent tracks had been destroyed by the time I got there, but some old ones were still impressive, and I met a taxidermist named Bob Titmus who had studied fresh tracks and had become completely convinced that they were genuine, made by some giant human or animal. A few weeks later I got a letter from Bob saying that he and another man had found perfect tracks of a second individual, an inch shorter than those of the original Bigfoot and of a distinctly different shape, and that these tracks were not in dirt on the road but at the bottom of the steep, brush-covered side-hill, in a hard-packed sandbar beside the creek. I made a second trip to California, and this time what I saw changed the course of my life. Where those huge tracks sank an inch into the ground, my boot prints hardly showed at all. Tremendous weight was obviously required to make the tracks, and the location was such that we could see no possible way that machinery could have been used there undetected. Copies of casts of two of those tracks are on display here, along with a picture taken on another occasion showing a deep track on a different Bluff Creek sandbar with a boot print beside it hardly discernible (Figures 2 and 3).

I was a newspaperman, not any sort of scientist, so I took my information to the zoology department at the University of British Columbia, expecting that



Fig. 3. A deep track on a different Bluff Creek sandbar with a boot print beside it hardly discernible.

they would be enthusiastic to take over the investigation of something of such obvious importance in their field. What a joke. The department head's response was a condescending explanation of how the tracks of a bear's hind feet can overlap his front feet, making imprints of the shape I described. A cast of just such an imprint is on display. There is a resemblance in general shape, but on examination it would fool nobody (Figure 4).

Disappointments like that are something I have become used to in the subsequent 46 years, but otherwise the experience has been rewarding. Good footprints are not reported very often, but they turn up once in a while, and in 1967 I was notified about, and able to examine, hundreds of them made by two individuals on another road under construction in the Bluff Creek area. An original cast from each of those prints is on display as well as some photographs of them. Clearly the larger track is that of the same individual that made the tracks Bob Titmus found in 1958, and other people have made casts and photographs of that individual's tracks at other times and places (Figure 5).

In the 9 years since I had first seen that track, I and others who had taken up the investigation had accumulated, often on tape, dozens of accounts by people who claimed to have seen one or more huge, hair-covered bipeds suitable to make such tracks, and in the autumn of 1967 one of those investigators, Roger Patterson, got lucky. He not only saw a sasquatch, he took 16-mm footage of it walking across yet another Bluff Creek sandbar.

Since 1967 hardly a year has passed without someone announcing that they have proved the Patterson movie a hoax. I have kept no record of all the people who are supposed to have made the hairy suit, or worn it. The stories contradict



Fig. 4. Cast of overlapping bear's paws.

each other every which way, and you can be sure there will be a different one along next year and another the year after that. What I do have is a lot of first-hand knowledge about the people and circumstances involved. I knew Roger Patterson quite well before he got the movie, and I had considerable contact with him afterwards. He may not have had an unblemished reputation in his community, but he was entirely sincere in his efforts in the sasquatch search, and he had neither the skills to attempt to fake such a creature nor the money to hire anyone who did. As a matter of fact a senior executive in the Disney organization told me in 1969 that they did not have the ability to match it, if they wanted something like that they would have to draw it.

What is probably more serious concerning the movie is the string of objections to it which have been raised by scientists who most people would expect to know what they are talking about:

- It shouldn't have hairy breasts because no female primate does.

Well, on the inside cover of this month's *National Geographic* is a picture of a female bonobo with hairy breasts, and bonobos don't even live in a cold climate.

- Its supposed to be a female but it walks like a male.

Well, human females walk differently from males because they have a wide pelvis to accommodate the human infant's large head. Other primates don't have that adaptation.

- It has prominent buttocks. Other higher primates don't.

Of course. It's a biped, they are quadrupeds.

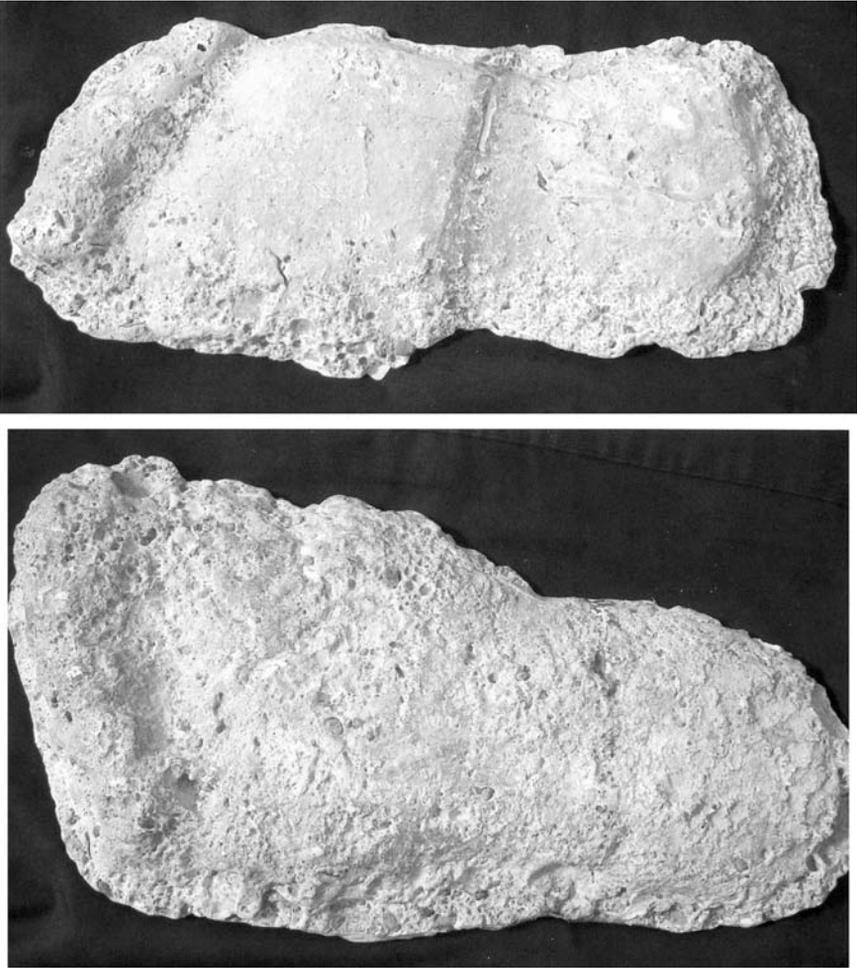


Fig. 5. Photos of 1967 Bluff Creek casts top: 13", bottom: 15".

- It has a sagittal crest, which is a male feature.

No, it's a feature providing anchorage for large jaw muscles. It is related to size, not sex.

And so on.

Roger Patterson took his movie to the Smithsonian Institution, but I am told that only the janitors turned out to see it. I know the Smithsonian later used to send out a form letter describing it as an 8-mm film. In Russia the top man in the field of biomechanics did study the movie, and found, as he told me himself, that the creature walks in a way that is different from, and more efficient than, the

way humans walk. Considering the implications if it is genuine, it could be the most important strip of film taken in the 20th century, yet in 36 years no American scientific institution has seen fit to study it.

The Patterson creature didn't just leave her image on film, she left tracks in the sandbar. As usual they were far deeper than the tracks of the humans that walked around them. Roger Patterson and his partner cast two of them. A day or so after they left the area a forestry crew happened on the scene and three tracks were photographed by a young man who later became one of the top executives in the U.S. Forest Service. Several days after that Bob Titmus made casts of all the remaining tracks, one of which I expect may figure in the presentation Dr. Meldrum will be making later this morning.

From the time it was made the Patterson movie changed everything. It stimulated widespread public interest, which in turn brought to light a lot of reports, both old and current, and was responsible for many more people, including a few with academic qualifications, getting involved in the investigation. From then on what had begun as a search for information became instead a struggle to keep up with it. I spent more than 30 years doing that with coded file cards, tabs on maps, and since 1990 with what was then a fairly sophisticated computer program. By 2001, I had close to 4,000 reports in the computer, 67% involving sightings of a large hairy biped or bipeds, 11.5% involving both a sighting and a footprint find, and 21.5% involving tracks alone.

At that point, however, the flood of information available on the Internet had become too much to keep up with, and I gave up the attempt. Today if you search Google for sites that contain references to both Bigfoot and sasquatch and include the term "report a sighting" you have 23 Websites to check out. If that seems a high number, consider that if you search for just "Bigfoot" the count is 880,000. One group alone, the Bigfoot Field Researchers Organization, at bfro.net, lists more than 1,600 North American reports that have been checked out by their investigators, and there is a backlog of hundreds more awaiting checking.

These reports do not prove the existence of the creature, of course. Science has made it clear that nothing short of physical remains will do for proof. But assuming for a moment that such an animal does exist, the reports contain enough information to answer a lot of questions about it. One thing they provide is a consistent physical description of upright-walking or running creatures completely covered with relatively short hair; averaging, by estimate, almost 8 feet in height; far more heavily built than humans but with similar leg and arm proportions; flat faces with no projecting muzzle, and necks so short as to be almost nonexistent.

Today it is easy to assume that such a consistent description results from the fact that almost everyone has seen a picture of the Patterson creature, but actually the description was solidly established before the movie was taken. Also, some reports mention specific behaviors that match those now known of other higher primates but reported first about the sasquatch. On that subject I will defer to Dr. Bindernagel.

The reports are also numerous enough to establish a few things about the sasquatch lifestyle:

- They are omnivorous, with almost equal mention of meats and vegetable matter in observations of things eaten or taken apparently to be eaten.
- They are largely nocturnal. Although humans cannot see well in the dark and there are far more humans around in the daytime, almost half of sightings take place at night.
- They are not active in cold weather. Less than 10% of reports mention snow, and tracks in snow are rare.
- They have an affinity for water. Unlike the known apes, they have been reported swimming, both on the surface and under water.
- They are not a threat to humans. There are quite a few reports of bluffing or threatening behavior, including shaking vehicles and small buildings with people inside, but only a very few old and questionable stories of injuries to humans, fatal or otherwise.

The reports are also informative in what they do not mention. In spite of a common assumption that sasquatch live in caves, indications of use of caves, or any other form of shelter, are very rare. Tool use is not indicated at all, and while objects are sometimes thrown, it is in a looping, underhand manner, not in a straight line. There are also no reports of either fangs or claws, an unlikely omission if we are dealing with an imaginary monster. Those things are presumably not reported because they don't exist, but there are also very few reports of females, infants or small juveniles, which must exist. This brings into question one of the most obvious assumptions, that sasquatch are solitary animals. Less than 10% of reports involve more than one creature, but if females and their young are very rarely seen it remains possible that family groups exist, while normally only lone males take a chance of encountering humans.

Two widely held opinions find no support in the accumulated information:

- Sasquatch are not an endangered species. They are reported everywhere in temperate North America except in areas where there is limited rainfall. To occupy so much territory they must number in the thousands, and be able to sustain themselves in a wide variety of habitats. There is no record of humans successfully hunting them, and if they are under pressure from destruction of habitat it can only be in a minor portion of their enormous range.
- They are not some kind of wild humans. They may be our closest relatives, although there isn't much room for anything to squeeze in between humans and chimpanzees, but their adaptations are entirely physical. They can never have been under any pressure to develop the mental abilities humans depend on for survival.

So much for assuming that sasquatch exist. The fact that no one has ever produced any physical remains is a compelling argument that they do not, and I

know of no answer for it. There are other arguments, though, that are easily dealt with.

- Why are there no fossils?

Actually there are at least two potential fossil ancestors for sasquatch, one or both of which I expect you will hear discussed today. The gorilla, by contrast, has none.

- People have a need to imagine monsters.

Those who make that claim, often scientists, are never asked to produce evidence for it, and they volunteer none. Nor do they explain why that need dries up where there is a shortage of rain.

- Why are sasquatch never seen by qualified observers?

In fact there are sighting reports by people with every imaginable qualification, many of whom were total skeptics prior to their encounter. One of the most recent is a professor of psychology at a major university who recorded a close and detailed observation while hunting wild boar.

- If these creatures are real, why is there no past record of them?

There are accounts in books and newspapers of such creatures being seen on this continent since at least the 1700s, and European, Oriental, and Middle Eastern references to hairy wild men are as old as recorded history. Oral information from Indian sources is presumably also very old, but is complicated by the fact that their traditional belief systems don't make a clear division between "real" and "supernatural" creatures. Many Indian languages contain names for beings that may be equated to sasquatch, which is itself an Anglicized version of an Indian name, and as Gordon Strassenburg will tell you, many words that refer to these creatures appear in modern place names.

Returning to the matter of scientific exploration of this phenomenon, there have recently been some positive developments. While no museum or university has yet taken any role in the investigation, and no institutional funding has been made available, a small but increasing number of individual scientists are taking part. Some of the very top people in the fields of zoology and anthropology are now taking a public stand that scientific exploration is warranted. They include George Schaller, director of science for the Wildlife Conservation Society (formerly the New York Zoological Society); Russell Mittermeier, president of Conservation International and chairman of the worldwide Primate Specialist Group; Jane Goodall, world-famous chimpanzee researcher; Esteban Sarmiento, primate specialist at the American Museum of Natural History; and Daris Swindler, author of "An Atlas of Primate Gross Anatomy—Baboon, Chimpanzee and Man."

Dr. Swindler has in the past appeared in TV documentaries on this subject as the mandatory skeptical scientist. He changed his opinion as a result of the discovery in a patch of drying mud, beside a road in a mountain forest in Washington, of the hairy imprints of a buttock, thigh, and forearm plus



Fig. 6. Heel print accredited by Swindler.

several heel prints, of an animal far larger than a human. A huge plaster cast was successfully made that shows all these elements with such detail that individual hairs can be counted. One heel print, a cast of which is on display, shows several inches of the Achilles tendon, and Dr. Swindler has gone on public record that it is the heel of a huge, unknown higher primate (Figure 6).

Another major step forward has been in the study of skin ridge patterns that are preserved in a very few of the footprint casts. These “dermatoglyphics” are distinctly different for each species of higher primate, and sasquatch casts far removed from each other in date and distance have been found to share their own unique pattern.

This line of research was originated by the late Dr. Grover Krantz and has been carried on by Jeff Meldrum. Recently a police fingerprint expert from

Texas who has studied the footprint patterns of all the great apes became involved, and has stated flatly that the dermatoglyphics prove beyond question the existence of an unknown species of ape in North America.

A third scientific approach has been to attempt to identify hairs collected in connection with sasquatch incidents. Unidentifiable hairs have been found at different locations that match each other, but there are no known sasquatch hairs to compare them with, and attempts to replicate their DNA have been unsuccessful. Someone more knowledgeable about such things than I am will have to explain why. A different technique that did show a result is radioimmunoassay, which makes identifications through immune reactions to proteins.

Some hairs collected by Bob Titmus were tested by Dr. Jerold Lowenstein, who had previously determined by the same method that chimpanzees are more closely related to humans than to gorillas. His findings in that regard were later confirmed via DNA, and his tests showed that the Titmus hairs were very close to human, chimpanzee, and gorilla, although not clearly any one of the three. All three possibilities could easily have been checked with a comparison microscope if there had been any hairs left to examine, but he had ground all of them up. Presumably because they were brown and were collected in California, Dr. Lowenstein suggested that the hairs were probably human, but they were pointed hairs, grown to length, while human hairs never stop growing and have cut-off ends. A copy of Dr. Lowenstein's letter is on display (Figure 7).

What is the bottom line on all this? It is quite simple. The existence of the sasquatch has not been proved, and the lack of a specimen remains a powerful argument that no such creature exists. There are, however, two things that *have* been proved, not just beyond a reasonable doubt, but beyond any doubt at all. One is that *Something in North America makes huge human-like footprints, with a depth indicating tremendous weight, and scientists cannot tell us what that something is.* The other fact is that *Thousands of people who would be considered credible on any other subject claim to have had a good look at one or more huge, bipedal, hair-covered creatures.* Scientists can't explain that either, and in neither case are they making any effort to find an answer.

Without recourse to the supernatural or extraterrestrial, there are only two possible explanations for these established facts. One is that humans share North America with a huge animal that may be our closest relative, but determinedly remain in ignorance of it. The other is that humans throughout recorded history have been faking evidence for the existence of an imaginary animal. Surely establishing whichever answer is true would be a scientific achievement of the greatest interest and importance, yet of the billions of research dollars and millions of man and woman hours of scientific talent, hardly a dollar or an hour is devoted to this quest. Why that should be so is, to me, the most intriguing mystery of all.

Some of you, I expect, have been only half listening to what I have said, because you read in the paper or saw on television that Ray Wallace, the man responsible for faking all the Bigfoot evidence, had made a deathbed confession,

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Aug 15, 1988

Bob Titmus
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Dear Mr. Titmus,

A couple of days ago I was talking with John Green, and he told me that you never received the results on the hairs you sent me. I assumed that since I had passed these results on to Grover Krantz on the telephone, that he would have informed you. I apologize for not contacting you directly.

I used all of your material to make antibodies in a rabbit and then tested that antibody to see which animal's serum gave the best reaction. It reacted more or less equally with human, chimpanzee and gorilla, which suggests that it was probably human. Those three are so close that I can't distinguish them (yet) on the basis of hair, though I can distinguish them if I have skin or blood. The problem is that I just haven't done enough work with hair, and so I don't have the necessary antisera to the various primates in question.

I appreciate your sending the additional specimens. I don't have any left over, as I wanted to get the best possible immune reactions in the rabbit.

Sincerely,

A handwritten signature in cursive script that reads 'Jerold M. Lowenstein'.

Jerold M. Lowenstein

Fig. 7. Lowenstein letter.

and his family had displayed the carved wooden feet he did it with. Editors who were cocksure that the whole Bigfoot thing was some sort of put-on just loved that story and spread it everywhere. It was a horrible example of completely irresponsible journalism, because the slightest effort at investigation would have shown that only the name "Bigfoot" began in Ray Wallace's time on Earth; the phenomenon to which that awkward name has become attached is infinitely older.

Unfortunately the same editors have since refused to publicize the fact that they were taken in, so the stifling effect their false stories have had on potential scientific exploration of an important matter will be with us for a long time. Ray

Huge Caveman Loose? 17-Inch Footprint!

Clearing Skies Due Tonight

By JEANNETTE BEFAME
News Staff Writer

LOS GATOS — Well, it has all the elements of a good mystery story, even if it should turn out to be a hoax.

Dr. R. Maurice Tripp, 15321 Quito Rd., a geologist and geophysicist, has the cast of a footprint 17 inches long he made in the Bluff Creek area east of Eureka. The footprint reportedly belongs to an "abominable snowman" who has been seen by the townspeople.

The Indians in Bluff Creek and the old timers in Eureka say the original legend goes back to about 1850.

But only 18 months ago it was revived and citizens of Bluff Creek, including a clergyman and a woman, said they saw the huge, husky illusive figure.

SKETCH MADE

Eyewitness accounts put together in a sketch by one of the men of Willow Creek show the figure to be an enormous cave-man like creature.

Dr. Tripp's engineering studies of the soil properties and depth of the footprint of which he made a cast show the weight of the owner of the print to be more than 800 pounds.

"The print is distinctly different from that of a bear or any other animal known to be in the area," Dr. Tripp said.

Although he does not discount possibility of a hoax, Dr. Tripp said he believes that the tracks left by the visitor lend certain credibility to the story.

"Several people have tried

to track him, and in one instance his footsteps could be followed a distance of 1½ miles through bush country.

"It would be difficult to fraudulently prepare hundreds of such tracks overnight—particularly in the type of country in which they were found."

Other evidence of the "abominable snowman" of Bluff Creek is a strand of hair found on a tree at a distance seven feet three inches from the ground. The hair was found immediately

after reports that he was seen in the area.

TWIN INTERESTS
Dr. Tripp says his interest in the situation is both scientific and curious.

He became involved in the story several months ago through communications with townspeople who told him of seeing the figure in the area.

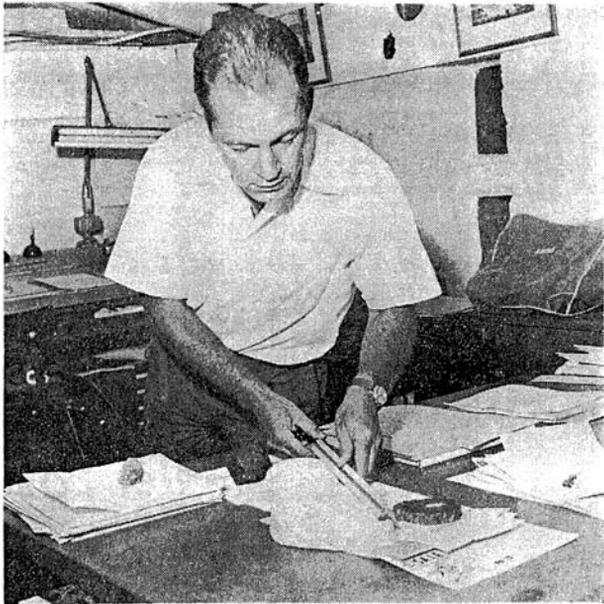
Dr. Tripp was able to get to the scene in time to get a cast of the footprint.

"Now, we just have to find the foot that fits it," he said.

Warm showers dampened most of Santa Clara Valley Wednesday and this morning, but the Weatherman said skies will clear by tonight.

The sprinkles, which measured only a trace in San Jose, brought better than a quarter of an inch to west valley points.

The official U.S. Weather Bureau forecast calls for fair weather tonight.



He Has Cast As Proof

Dr. R. Maurice Tripp measures a cast of what he says is the footprint of an "abominable snowman." Dr. Tripp says the footprint is that of a man who weighs more than 800 pounds and has been reported seen by residents of an area near Eureka.

San Jose
News
abt 1959

Fig. 8. Newspaper story quoting geophysicist.

Wallace was indeed the contractor for the road job where the first "Bigfoot" cast was made, and he did indeed, in later years, make and sell fake track casts, but so far no evidence has surfaced that he ever tried to fool anyone with fake tracks in the ground. He eventually made many fabulous claims concerning himself and "Bigfoot," but having made the tracks that showed up on his road job was never



Fig. 9. Fiberglass copies of Titmus casts.

among them. His original, very genuine, reaction was concern that the tracks were interfering with the work and costing him money and trouble.

Everyone who looked into the matter at the time of course started with the idea that someone wearing false feet might have made the tracks, and Ray, who had a reputation as a practical joker, was a suspect, but the idea did not survive investigation. Sinking deep into hard ground, which I saw for myself, and taking huge strides up steep side-hills with deeply dug-in toes, which other investigators saw, the tracks showed evidence of tremendous weight, size, and strength. A story is on display here quoting a geophysicist who examined the tracks and made a cast of one. He estimated that the track maker must have weighed more than 800 pounds. The idea that a man wearing the equivalent of snowshoes could have faked the tracks made no sense then and makes no sense now (Figure 8).

As to the wooden feet the Wallace family produced, life-size photos of them are also on display, and they do not at all resemble the original “Bigfoot” tracks

they are supposed to have made. They were apparently carved, rather crudely, in imitation of the casts Bob Titmus made of the second type of tracks he found (Figure 2). Accurate, shoe-mounted fiberglass copies of those casts are also here, and anyone who can get in size 11 shoes is welcome to try them out (Figure 9).

The fiberglass copies were made to determine what could be done with them in the way of faking tracks, which proved to be not much. Presumably the Wallace carvings were fitted with foot straps for the same reason, and showed the same result. They can be used to make passable fake prints on flat, soft surfaces, but even if the wearer carries another man on his back they are useless in hard-packed sand, and they are totally unsuitable for climbing side-hills.

Some day, some institution that includes students of zoology and of human behavior is going to take up the sasquatch question and find itself in a win-win situation. There is a blockbuster discovery to be made in one field or the other and amateurs have already done most of the leg work. It will be a pity if that discovery is long delayed because a bunch of media know-it-alls fell for a nonsensical story.