



## ICE - Making Predictions

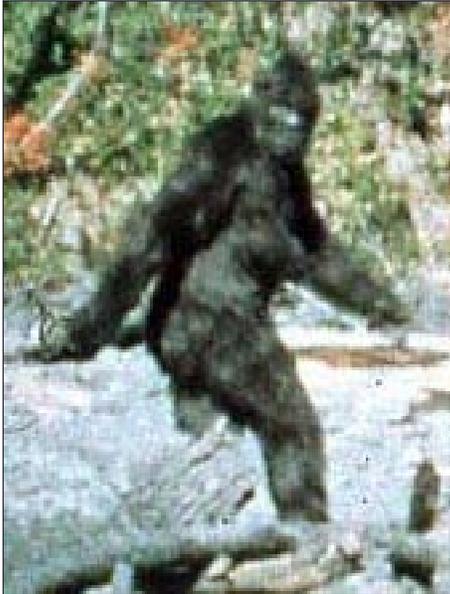


Figure 1: Frame 352 (of 952) from the film taken by Roger Patterson on October 20, 1967, at Bluff Creek, California.

**Since the late 1950's, a string of reports have described large, hairy, ape-like creatures (named "Bigfoot") inhabiting the forests of the Pacific northwest. As recently as last Thursday<sup>1</sup>, credible witnesses have come forth with reports of massive footprints and large, bipedal creatures (see Figures 1 and 2<sup>2</sup>).**

**For the last forty years, Bigfoot researchers have made plaster casts of large prints that have been discovered in wilderness areas of the Pacific Northwest.**

**Two of the measurements that Bigfoot researchers have focused on are the length of the foot and the foot width index (this is the width of the foot divided by the**

**length of the foot).**

- **The print in Figure 2 was measured a few days after Roger Patterson shot his film. The print was found to be 14.5 inches long<sup>3</sup>. What is the foot width index for this print?**

- **What is the length and foot width index of your foot?**



Figure 2: Photograph of footprint allegedly made by the subject filmed by Roger Patterson.

<sup>1</sup> Source: "Huge tracks spark Sasquatch rumor." By Philip Lee-Shanok. *Toronto Sun*, Thursday June 21, 2001.

<sup>2</sup> Image source: Bigfoot Field Research Organization. <http://www.bfro.net>

<sup>3</sup> Source: Krantz, G. S. "Bigfoot Sasquatch evidence. Second Edition" Blaine, WA: Hancock House, 1999.

The lengths and foot width indices for a large number (410) of plaster casts are shown in Figure 3<sup>4</sup>.

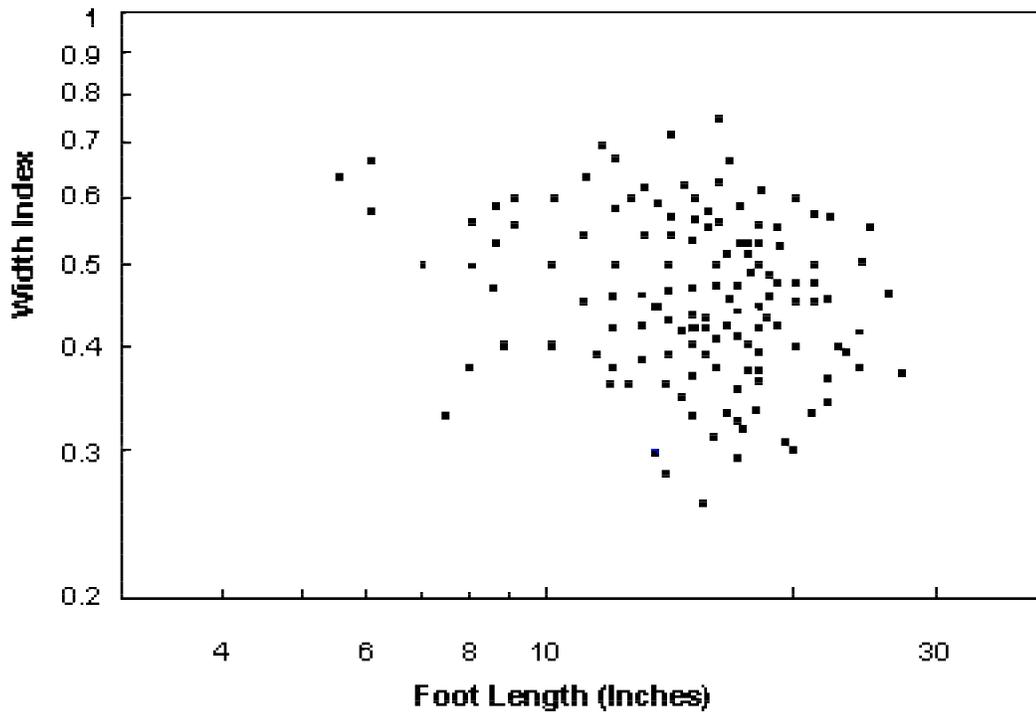


Figure 3: Plot of width index versus foot length for plaster casts of alleged Sasquatch footprints. (After Fahrenbach, 1998.)

- **Plot the data that you obtained from Figure 2 on this graph. Is the print shown in Figure 2 typical of other prints found? What about the data from your own foot?**
- **Based on the plot in Figure 3, what is the shortest foot print that Dr. Fahrenbach included in his analysis? How long was that foot print and what was its foot-width index?**
- **From the plot in Figure 3, what are the two quantities involved in this relationship? Which appears to be the dependent variable, and which seems to be the independent variable?**

---

<sup>4</sup> Source: Fahrenbach, W. H. (1998) "Sasquatch: Size, scaling and statistics." *Cryptozoology*, **13**: 47-75.

- **The print shown in Figure 2 measured 14.5 inches long. Suppose that another print was found that also measured 14.5 inches long. Based on Figure 3, what foot width index would you predict for the new print?**

**In 1976 and 1977, residents of Massachusetts were astonished to find enormous foot prints near the rural town of Agawam. The foot prints were later found to a hoax perpetrated by a local teen-ager.**

Bigfoot Sorry About Stepping on Law<sup>5</sup>

AGAWAM, Mass. (UPI) - A teen-ager says he's sorry his "big foot" joke was taken more seriously than he intended.

Police say they confiscated two, 28-inch-long plywood boards constructed to look like big feet from David Deschenes, 16, of Agawam. A police spokesman said Deschenes told authorities he spent two days shaping the boards and then wore them on a walk along the river Dec. 20.

Dozens of huge, five-toed prints were found in a wooded area along the Westfield River two weeks ago.

"I did it as a joke for the little kids around here, but it got out of hand. The next thing I knew the police were out at two in the morning looking around, taking it seriously. I didn't feel like going out to tell them I was 'bigfoot'", Deschenes said.

Deschenes said he hopes to get the feet back from police. If they are returned, he said, he's not going to take them on any more strolls through the woods.

"I want to have them mounted," he said.

- **Let's assume that Mr Deschenes wanted his prints to look as much like other recorded big foot prints as possible. What foot width index would you predict for the prints made by Mr Deschenes?**

- **Why was it quite to make an unambiguous prediction for the foot-width index for Mr Deschenes but much harder to make an unambiguous prediction for the 14.5 inch print?**

---

<sup>5</sup> Source: Kenosha News, Thursday January 6, 1977.