Stop 344 Adult Tour – Quinine, Palm House

The indigenous people of Peru call the bark from this tropical evergreen shrub with the large laurel-like leaves and clusters of fragrant white or pink flowers - 'quina quina.' The spongy bark of the Chinchona tree, which is a relative of coffee and gardenia, is very alkaloid with a bitter taste. You may have tasted quinine in its use as a flavoring for tonic water.

Hundreds of years ago, Peruvian Indians prepared the bark from certain species of Chinchona trees by grinding it down to a fine powder and mixing it with water or wine to treat and prevent the fever of malaria. The bark was in such demand that at one point in time, the cost of the bark powder was often matched by its weight in gold. Those eager to make a profit began to harvest the chinchona trees without remorse, leading to the destruction of its native habitat. In an effort to save the trees, the Peruvian government tried to prohibit their export.

By the middle of the 17th century, Jesuit missionaries in South America had brought the bark back with them to Europe. But it wasn’t until 1820 that French chemists discovered the bark’s key ingredient was quinine. It then took another 124 years before American chemists were able to synthesize quinine in a lab for widespread use. The discovery of quinine and its synthetic derivatives has been extremely important in fighting this most devastating disease that infects over 200 million people a year.

Ironically, the Cinchona trees survive today because of a couple of outlaws who managed to smuggle a few seedlings out of Peru in the 1860’s and used them to set up large plantations in Java. Up until the 1940’s, these plantations supplied almost 95% of the world's quinine. It’s fitting that seeds from their plantations were eventually returned to establish new chinchona plantations back in Central America.