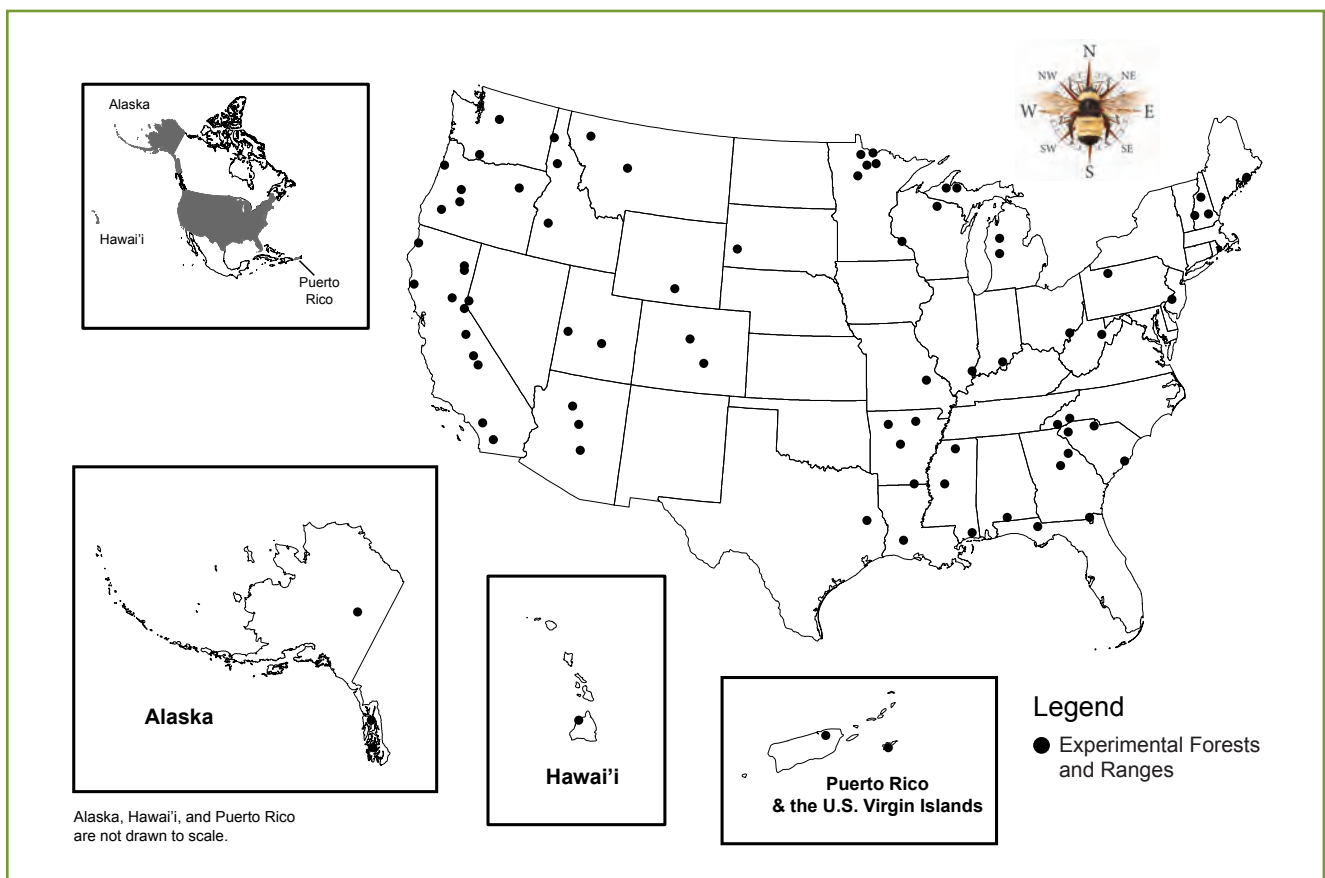


# Spotlight on an Experimental Forest and Range Luquillo Experimental Forest

In 1908, the Forest Service established a system of experimental forests and ranges (EFRs) to be set aside for environmental research. More than 100 years later, 80 of these areas are spread across the United States (figure 16). The smallest of these is 47 hectares, and the largest is 22,500 hectares. Multiply the number of

hectares by 2.47 to find out the size of these areas in acres.

Much of the research on EFRs is concerned with environmental changes that occur over long periods of time, over large areas, or both. Over 30 of the areas were established at least 70 years ago. In some cases, experiments are designed to last 40 or more years.



**Figure 16.** Experimental forests and ranges (EFRs) are located all across the United States. Where is the one closest to where you live? Map by Carey Burda.

On EFRs, scientists continually collect information about the weather, the amount of rainfall, the soil, and the ecosystem in that location. The research in “Standing on the Shoulders of Giants” and the Time Warp focused on research from the International

Institute of Tropical Forestry (IITF), which is located in Puerto Rico. The Luquillo Experimental Forest is also located in Puerto Rico, and many of the scientists at IITF conduct research there (figure 17a and 17b).

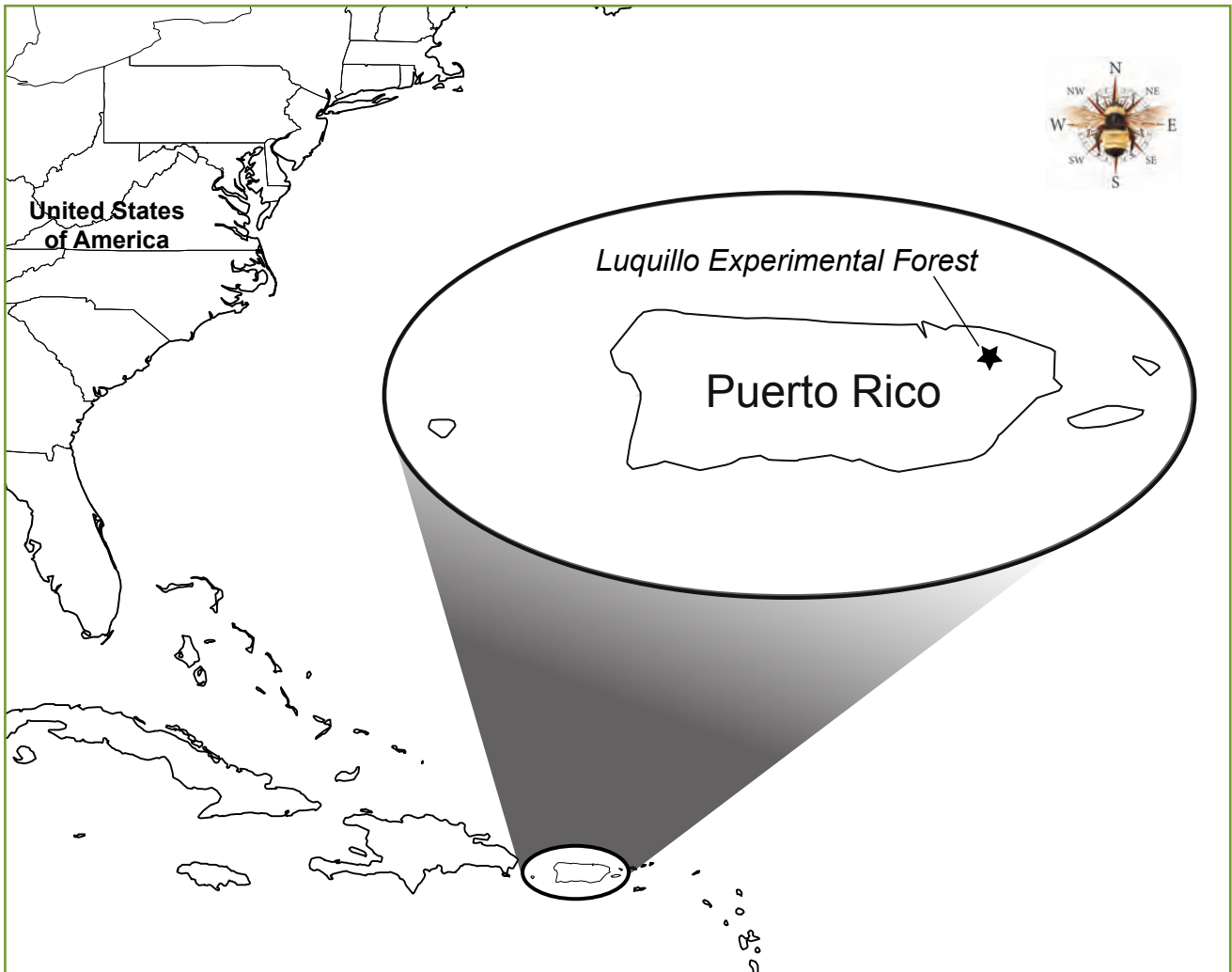


USDA Forest Service photo.



Photo by Chris Nytch, via USDA Forest Service.

**Figure 17a and 17b.** The International Institute of Tropical Forestry runs the Sabana Field Research Station and El Verde Field Station located in the Luquillo Experimental Forest.



**Figure 18.** The Luquillo Experimental Forest is located in the northwest portion of Puerto Rico. Map by Carey Burda.

Luquillo Experimental Forest has the same boundaries as El Yunque National Forest (figure 18). Luquillo Experimental Forest was established in 1956.

Additionally, Luquillo Experimental Forest is designated as a National Science Foundation Long Term Ecological Research Site (LTER).

The Luquillo Experimental Forest provides a great area for research because the Luquillo Mountains

within the forest contain a variety of types of tropical forests. Research in the Luquillo Experimental Forest has included studies such as tree growth in tropical forests, vegetation recovery, endangered species recovery for the Puerto Rican parrot, and how tropical forest ecosystems function. For more information on the Luquillo Experimental Forest, visit [http://www.fs.fed.us/research/publications/efr/efr\\_wo1.pdf](http://www.fs.fed.us/research/publications/efr/efr_wo1.pdf)