

## Pollen Count Procedure

The pollen collection device used is a Rotorod Sampler Model 40 from Multidata Sampling Technologies (Figure 1). It is mounted onto a pole approximately six feet above the roof on the 4th floor roof of the Nature Research Center.

Figure 1. Rotorod Pollen Sampler



The sampler contains a retracting head with two plastic pollen collection rods (Figure 2). One side of the sampler rod is coated with silicon grease which causes pollen to adhere to the rod when it is exposed to the air.

Figure 2. Pollen Collection Rod (Plastic Rod on Right)



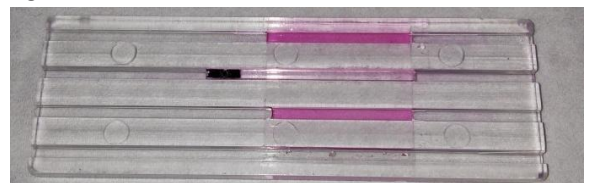
For one minute out of every ten minutes, the retracting head spins and the pollen collection rods drop down to sample the air (Figure 3). The air is sampled for 24 hours, and then the rods are removed.

Figure 3. Pollen Collection (Spinning near Bottom)



In the lab, the pollen rod is stained with Calberla's stain which turns the pollen grains pink. The rod is analyzed under a microscope at 400X magnification (Figure 4). The stained grains are categorized (tree, weed, or grass) and counted.

Figure 4. Stained Pollen Collection Rod



The count is reported as the number of tree pollen, grass pollen and weed pollen on the rod, and also as the total number of pollen grains per cubic meter of air sampled.

$$\text{Pollen Count} = \frac{\# \text{ Grains Counted}}{3.12 \text{ m}^3}$$