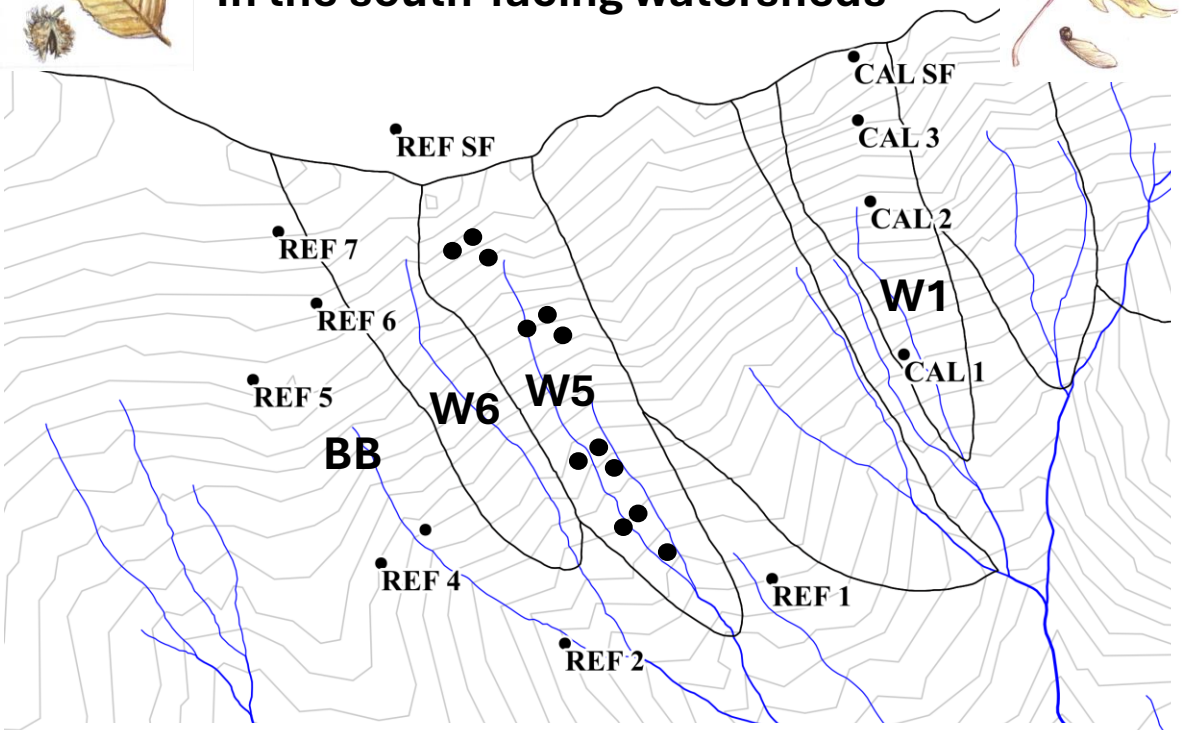
Long-term annual productivity sites In the south-facing watersheds



The long-term productivity sites are located in W1, W5 and reference sites are to the west of W6 as we were initially not permitted to put collectors in W6 directly. These sites were established in 1992 for reference and W5 and 1996 for W1.

The collectors were emptied three times a year: early May, late August and after leaf fall in late Oct-early Nov each year. Starting in 2024, the late August collection was discontinued as this collection mainly contained leaf fragments and caterpillar frass. Some of these sites (BB and W1) are also used for foliar chemistry collections, lysimeters and gas rings.

Leaves and seeds in the collections are sorted to species and counted. Fine twigs (<2cm diameter) are included in the total mass for the samples. We also collect larger woody trim in 2.5 by 2.5m plots each spring. Tagged trees are measured and new trees that reach 10cm diameter are added every 2 years (even years). A select number of trees also have manual dendrobands to measure annual tree growth. These bands were first put on in the reference sites (2022), next in W1 (2023) and most recently in W5 (2024). These bands take 1-2 years to "settle" on the tree and start yielding meaningful data.

Data from these sites are central to carbon flux calculations (Fahey et al. 2005), patterns in leaf abundance (Fahey et al. 2022), and seed production (Cleavitt & Fahey 2017 and numerous publications from Jim Clark's MASTIF project). The Clark lab has visited the sites in 2019 and 2024 to take seed crop count data at the BB sites.

In these sites, there will be red crates on two fence posts (except the highest sites where crates are on the ground), tagged trees, trees with dendrobands and small white PVC posts that mark the corners of the annual trim plots.

As with all sites intended to be long-term, do NOT sample in these sites directly. Sample nearby and NOT using dendrobanded or tagged tree individuals.

Please refrain from putting anything into the crates. I have found bones and oak leaves that did not represent the inputs of the site.