KEY TO COMMON TREES IN THE WESTMINSTER COLLEGE WOODS

1. trees with leaves 12
1a. trees without leaves 2

2. buds opposite 3
2a. buds alternate 5

3. buds pointed, longer than they are wide 4
3a. buds ovoid, almost as wide as they are long ..... green ash

4. lateral buds obvious, cone-shaped, sharp-pointed; bark smooth and gray on young trees, becoming dark gray and furrowed on older trees ..... sugar maple
4a. lateral buds hidden, only terminal buds obvious; twigs slender, flexible; some twigs with button-like flower buds; small trees ..... flowering dogwood

5. twigs without spines 6
5a. twigs with spines; small trees ..... hawthorn

6. terminal bud obviously larger than the lateral buds 7
6a. terminal bud the same size as the lateral buds 9

7. buds brown 8
7a. buds bright yellow; lateral buds diverging from the twig; bark on older trees light grayish, with shallow fissures and interlacing ridges ..... bitternut hickory

8. terminal buds 3/4 inch long, flattened; twigs shiny with a spicy-aromatic odor; bark on older trees very thick with deeply-rounded interlacing furrows and narrow rounded ridges ..... tulip tree
8a. terminal buds less than 1/2 inch in length, ovoid; bark of older trees dark gray with shallow fissures and narrow ridges in a diamond-shaped pattern ..... pignut hickory

9. buds slender, sharp pointed, 3/4 to 1 inch in length, diverging from the twigs; bark gray, very smooth; leaves often persistent in winter ..... American beech
9a. buds less than 1/2 inch long 10

10. twigs reddish or olive brown with many small, pale dots and often covered with a grayish film; if broken, the twigs have a very pronounced smell of bitter almonds; bark of older trees dark, with thick, scaly plates ..... black cherry

10a. twigs grayish or purplish-gray in color without numerous pale dots 11

11. many buds clustered at the ends of the twigs; bark of older trees light gray, often deeply-furrowed with distinct ridges broken into oblong blocks ..... white oak

11a. only one bud at the end of each twig; twigs distinctly mucilaginous if chewed; prefer well-lighted areas at the edge of the woods ..... slippery elm

12. leaves opposite 13

12a. leaves alternate 15

13. leaves simple 14

13a. leaves compound with six to eight leaflets on each leaf ..... green ash

14. leaves palmate with toothed margins: bark smooth and gray on young trees, becoming dark gray and furrowed on older trees ..... sugar maple

14a. leaf margins smooth ..... flowering dogwood

15. twigs without spines 16

15a. twigs with spines: small trees ..... hawthorn

16. leaves compound, with five to ten leaflets on each leaf 17

16a. leaves simple 18

17. usually five leaflets per leaf: bark of older trees dark gray with shallow fissures and narrow ridges in a diamond-shaped pattern ..... pignut hickory

17a. more than five leaflets per leaf (usually nine): bark on older trees light grayish, with shallow fissures and interlacing ridges ..... bitternut hickory

18. leaves oval, without deep lobes 20

18a. leaves lobed 19

19. leaves shaped like tulips with flat apexes and four distinct lobes: twigs shiny with a spicy-aromatic odor; bark on older trees very thick with deeply-rounded interlacing furrows and narrow rounded ridges ..... tulip tree

19a. leaves with rounded apexes and eight to ten deep lobes: bark of older trees light gray, often deeply-furrowed with distinct ridges broken into oblong blocks ..... white oak

20. leaves with distinct teeth around the margins 21

20a. leaf margins smooth: twigs with many small, pale dots and often covered with a grayish film; if broken, the twigs have a very pronounced smell of bitter almonds; bark of older trees dark, with thick, scaly plates ..... black cherry

21. leaves asymmetrical at the base (one side lower than the other): twigs distinctly mucilaginous if chewed; prefer well-lighted areas at the edge of the woods ..... slippery elm

21a. leaves symmetrical at the base; bark gray, very smooth; dead leaves often persistent in winter ..... American beech