Appendix H: Dichotomous Plant Key

A taxonomic key is a device for easily and quickly identifying an unknown organism. The user of the key is presented with a sequence of choices, and by always taking the correct choice he or she will ultimately arrive at the name of the organism. Keys based on successive choices between only two statements are known as dichotomous keys.

It is good practice to examine a specimen carefully and take note of its characteristics before beginning to key it out. Other helpful hints for the successful use of keys include:

1. Always read both of the choices presented at each step of the key. Even if the first seems to be the correct one to choose, the second may even be better.
2. If measurements are called for, use a ruler, do not guess.
3. Living things are always somewhat variable, so do not base your conclusions on a single observation, but arrive at an average by studying several parts or specimens.

This key to some of the more common species of trees and shrubs of the Rio Grande Nature Center is based entirely on vegetative characteristics of the plants, such as growth habit, phyllotaxy and leaf structure. Because this key only covers the more common trees and shrubs, it is possible that the plant you are trying to identify may not be represented.

1. a. Leaves not scale-like 2

1. b. Leaves scale-like and triangular ..... Saltcedar *(Tamarix chinensis)*

2. a. Leaves compound..... 3

2. b. Leaves simple 5

3. a. Leaves palmately compound 4

3. b. Leaves pinnately compound ..... False indigo *(Amorpha fruticosa)*

4. a. Leaflets usually three, shrub ..... Skunkleaf sumac *(Rhus trilobata)*

4. b. Leaflets usually five, vine.... Virginia creeper *(Parthenocissus quinquifolia)*

5. a. Leaf arrangement opposite..... 6

5. b. Leaf arrangement alternate 7

(continued on next page)

6. a. Leaves silvery on both upper and lower surface, and oblong to elliptic.....Russet buffaloberry *(Shepherdia canadensis)*

6. b. Leaves grayish green and oval ..... New Mexico olive *(Forestiera pubescens)*

7. a. Blade broad, flat and green or silvery..... 8

7. b. Blade thread or needle-like, cylindrical and silvery .....Sand sage *(Artemisia filifolia)*

8. a. Leaf with no clear, distinct petiole (sessile)..... 9

8. b. Leaf with a clear distinct petiole..... 10

9. a. Leaves linear, darkish green, covered with fine hairs (felt-like); stems covered with white gray to yellowish hairs .....Rubber rabbitbrush *(Ericameria nauseosa)*

9. b. Leaves linear to elliptic, light green, covered with roughened scales; stems not covered with fine hairs .....Four-wing saltbush *(Atriplex canescens)*

10. a. Blades unlobed..... 11

10. b. Blades distinctly lobed (usually three lobed) ..... Golden currant *(Ribes aureum)*

11. a. Petioles not red..... 12

11. b. Petioles red..... Peachleaf willow *(Salix amygdaloides)*

12. a. Leaf margins clearly toothed..... 13

12. b. Leaf margins entire or remotely toothed..... 14

13. a. Blade deltoid or triangular, more than 10 teeth on each side ..... Rio Grande cottonwood *(Populus deltoides ssp. wislizeni)*

13. b. Blade asymmetrical at base (near petiole) with teeth that point outward at right angles ..... Siberian elm *(Ulmus pumila)*

14. a. Leaf blade relatively large with upper surface green and lower surface silvery white ..... Russian olive *(Elaeagnus augustifolia)*

14. b. Mature leaves dull grayish green with hairs; twigs reddish-brown to gray.....Coyote willow *(Salix exigua)*

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