

Prepared by Jerry Copeland, copyrighted 2012

For the state of ARIZONA

This key requires the use of a microscope that has a function to make measurements of the field of vision.

NOTE: some exceptions may occur within the four major classes though the species sought ought be confined to the major class.

The basic definitions are:

ADNATE: base of leaf attached directly to stem

DECURRENT: base of leaf grows along the stem

CUNEATE: a wedge shaped growth of the leaf base along the stem.

Measurements of the strobili should probably be done with the strobilus removed from the plant stem and laid horizontally before viewing and measuring. Ideally the strobilus should be fully matured as immature strobili will be smaller.

The measurements given in the key represent the range of length or width of the plant structure so noted.

Generally the measurement of length is from the tip to the observable or determinable base of the structure.

For the strobili, measurement of length is roughly from the base of the strobilus to the tip of uppermost sporophyll.

Adnation is generally represented as a green leaf base that is attached to a darker colored stem.

SELAGINELLA: TETRAGONOSTACHYS: KEY TO LEAF BRISTLES 1.6 mm TO 2.0 mm

PAGE 2

1. Leaf bases decurrent

*S. densa*

2. Leaf bases adnate

*S. rupincola*

SELAGINELLA: TETRAGONOSTACHYS: KEY TO LEAF BRISTLES 1.1 mm TO 1.5 mm

1. Leaf bases adnate only

*S. rupincola*

2. Leaf bases decurrent, including cuneate, only

*S. densa*

3. Leaf bases both adnate and decurrent, including cuneate

*S. scopulorum*

SELAGINELLA: TETRAGONOSTACHYS: KEY TO LEAF BRISTLES 0.5 mm TO 1.0 mm

PAGE 3

1. Leaf bases adnate only

*S. rupincola*

3. Leaf bases both adnate and decurrent, including cuneate

A. Leaf bristle smooth or with a few teeth

1. Leaves same size all around main stems , 2-3.4 mm long

*S. underwoodii*

2. Leaves distinctly longer on underside of main stems, 2.5-4 mm long

*S. scopulorum*

B. Leaf bristle puberulent

*S. leucobryoides*

1. Leaf bases adnate only

A. Plants with creeping stems and leaves 1-2 mm long

*S. mutica*

B. Plants with erect stems and leaves 1.9-2.7 mm long

*S. x neomexicana*

2. Leaf bases decurrent, including cuneate, only

A. Leaf bristle, if present, very short, 0.1-0.3 mm long, and flat, not rounded

*S. arizonica*

B. Leaf bristle present and rounded, short, 0.25-0.5 mm long

*S. watsonii*

3. Leaf bases both adnate and decurrent, including cuneate

A. Leaves dimorphic, with underside leaves longer than upperside leaves on main stems; strobili 3-8 mm

*S. eremophila*

B. Leaves monomorphic, with leaves around main stems of same size

1. Strobili short, 0.4-1.5 cm long with dry stems that fall apart with handling

*S. leucobryoides*

2. Strobili longer, 0.5-3.5 cm long with dry stems that do NOT fall apart with handling

*S. underwoodii*

---