

Prepared by Jerry Copeland, copyrighted 2012

For the state of NEW MEXICO

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 adnate

*S. rupincola*

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

1. Leaf bases adnate, strobili 0.5-3.5 cm long, leaf bristle puberulent

*S. rupincola*

2. Leaf bases both adnate, on upperside of main stems, and decurrent, on underside of main stems, strobili 0.5-4.5 cm long, leaf bristle smooth or with a few teeth

*S. scopulorum*

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

1. Leaf bases adnate

*S. rupincola*

2. Leaf bases both adnate, on upperside main stems or on young branches, and decurrent, on underside main stems or entirely on main stems

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

*S. underwoodii*

B. Leaves distinctly longer on underside of main stems

1. Growing tips of stems straight (with leaves horizontal to growing surface), leaves 2.5-4.3 mm long

*S. scopulorum*

2. Growing tips of stems upturned (with leaves perpendicular to the growing surface), leaves 2.3-2.75 mm long

*S. peruviana*

SELAGINELLA: TETRAGONOSTACHYS: KEY TO LEAF BRISTLES under 0.5 mm

1. Leaf bases adnate

A. Leaf length 1-2 mm long

*S. mutica*

B. Leaf length 1.9-3.8 mm long

*S. x neomexicana*

2. Leaf bases decurrent only

*S. arizonica*

3. Leaf bases both adnate, on upperside main stems or on young branches, and decurrent, on underside main stems or entirely on main stems

A. Leaves dimorphic, with underside leaves longer than upperside leaves on main stems, or, with scale-like leaves on underground rhizomes

1. Aerial or upperside leaves short, 1.7-2.4 mm long

*S. weatherbiana*

2. Aerial or upperside leaves longer, 2.3-3.85 mm long

A. Upperside leaves 2.3-2.75 mm long, margins ciliate 0.08-0.16 mm long

*S. peruviana*

B. Upperside leaves 3.3-3.85 mm long, margins ciliate 0.12-0.26 mm long

*S. wrightii*

B. Leaves monomorphic, with leaves around main stems of same size, 2-3.4 mm long

*S. underwoodii*

