Figure 1: *A. sessilis* ‘Red’. Growth habit in terrestrial habitat.

A: Decumbent growth.
B: Ascending growth.
C: Widely branched and forming a mat.

Scale bar: A. 1.0cm: 4.0cm
B. 1.5cm: 3.8cm
C: 0.6cm: 3.8cm

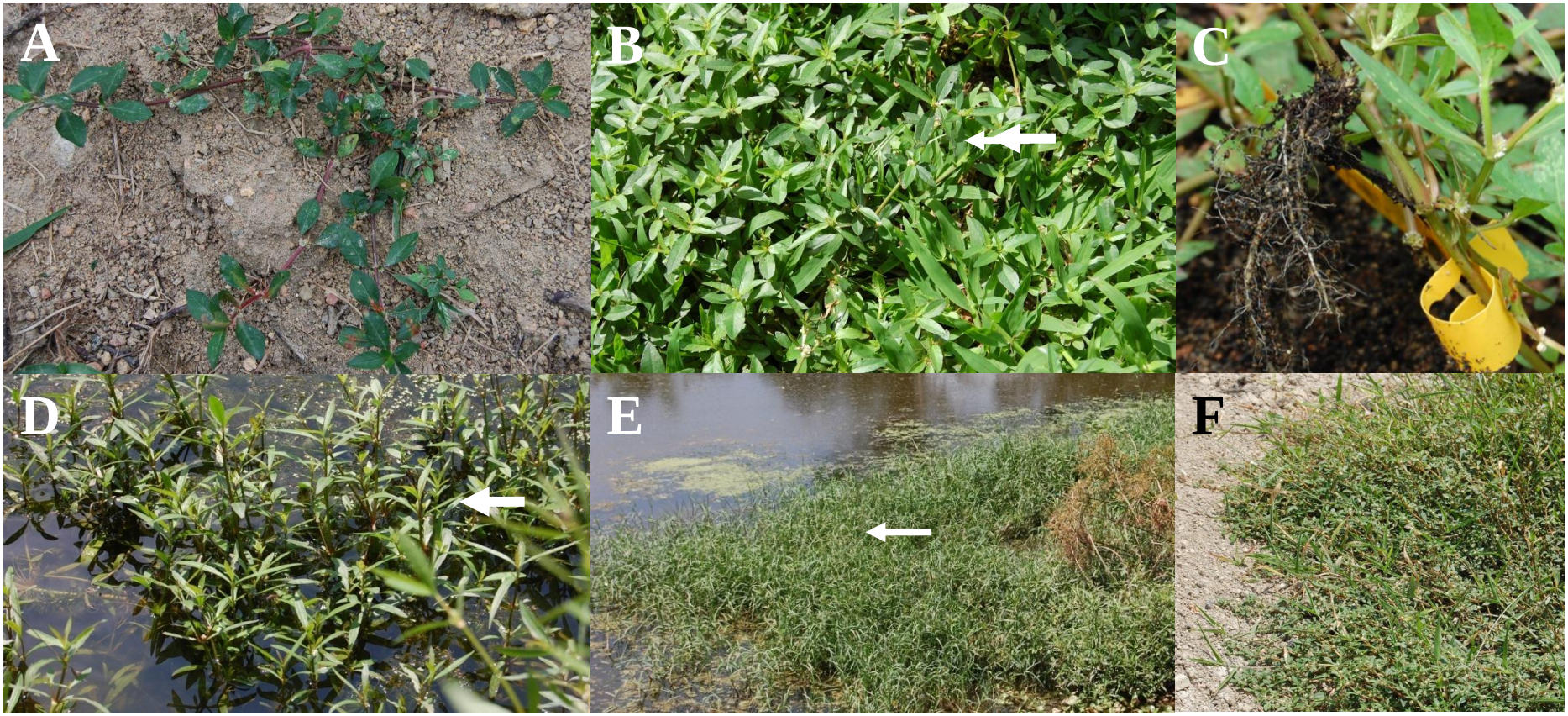


Figure 2: *A. sessilis* 'Green'. Growth habit in terrestrial and aquatic habitat.
A: Decumbent growth.
B: Widely branched and forming a mat (indicated by arrow).
C: Taproot and fibrous roots are robust at the node.
D: Ascending growth and partially submerged in water.
E: Growing along the canal and forming a mat towards the middle part of the canal (indicated by arrow).
F: Decumbent growth on the ground

Scale bar: A. 1.0cm: 3.0cm
B. 1.0cm: 3.0cm
C. 4.0cm: 2.9cm
D. 0.9cm: 3.6cm
E & F. 1.0cm: 4.0cm

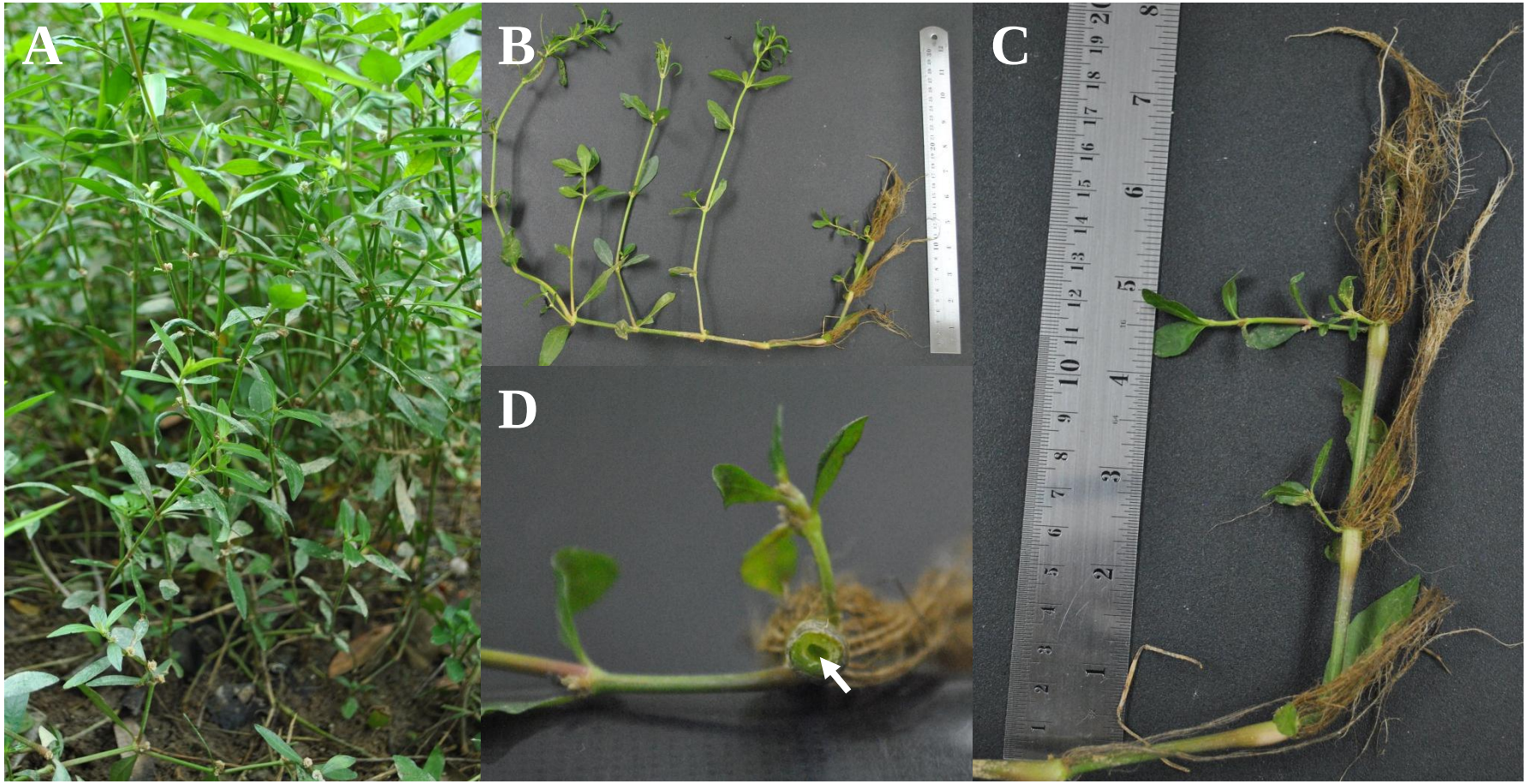


Figure 3: *A. sessilis* ‘Green’. Growth habit and stem morphology of plants in aquatic habitat, canal.

A: Ascending growth.
B: Branched stem.
C: Long rootlets at the node.
D: Fistular stem (indicated by arrow).

Scale bar: A. 1.0cm: 3.6cm D. 1.5cm: 3.5cm

Figure 4: *A. brasiliana*. Habit and stem morphology.
Mature–red; young–green.

A: Ascending growth.

B & C: Appressed straight to curved hairs moderately scattered on the stem internodes and nodes.

D: Internodes above the node is thickened and articulate.

E: Young stem is densely covered with appressed with straight and curved hairs.

Scale bar: A. 1.5cm: 9.5cm
D. 3.0cm: 1.7cm
E. 3.5cm: 1.0 cm

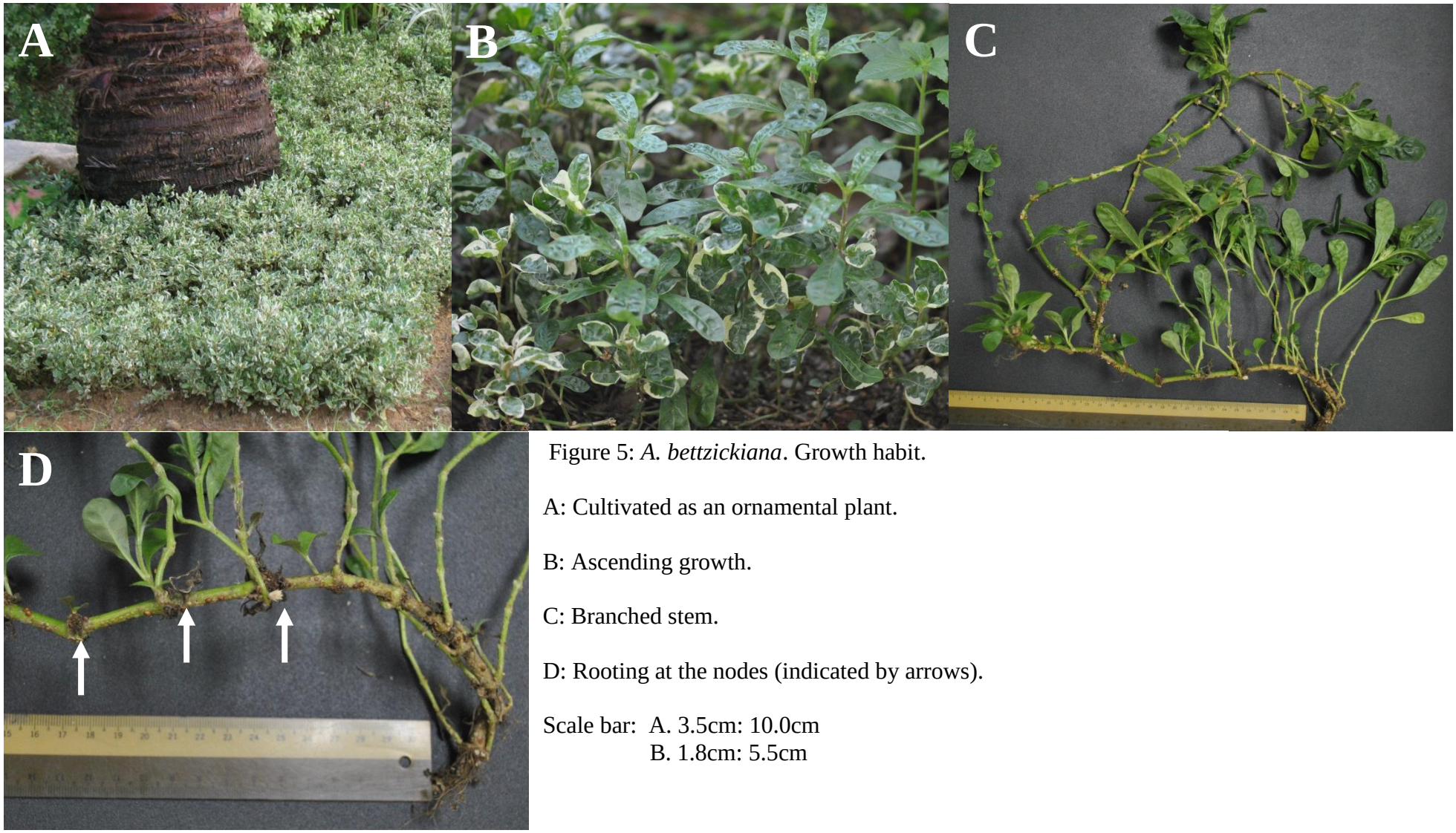


Figure 5: *A. bettzickiana*. Growth habit.

A: Cultivated as an ornamental plant.

B: Ascending growth.

C: Branched stem.

D: Rooting at the nodes (indicated by arrows).

Scale bar: A. 3.5cm: 10.0cm
B. 1.8cm: 5.5cm

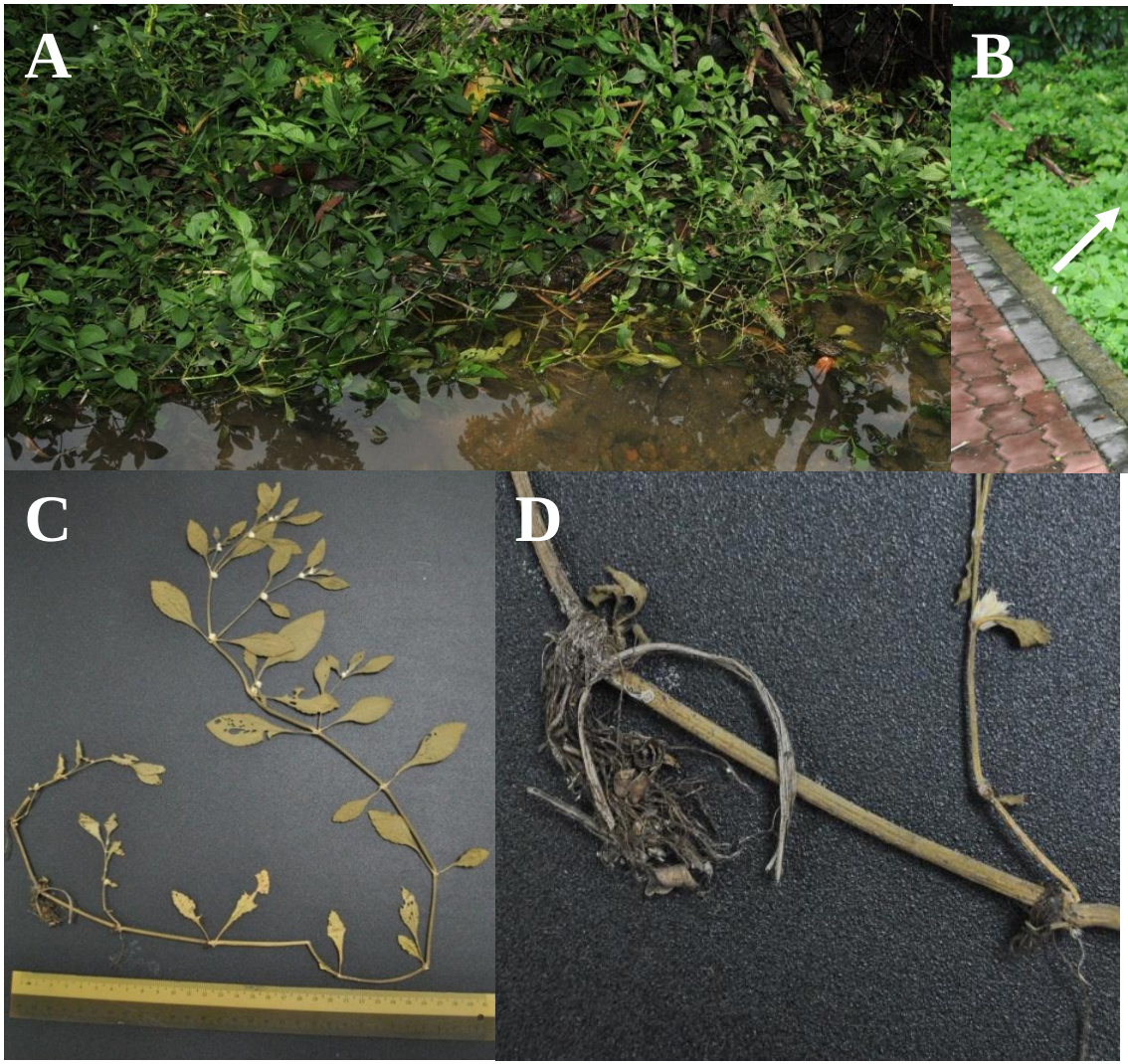


Figure 6: *A. ficoidea*. Growth habit. A & B: Fresh specimens, C & D: Dried specimens.

A: Decumbent growth along the drain

B: Decumbent growth at the waste lands (indicated by arrow).

C: Ascending growth.

D: Rooting at the node.

Scale bar: A. 1.0cm: 4.5cm
B. 2.0cm: 8.0cm
D. 2.0cm: 0.5cm

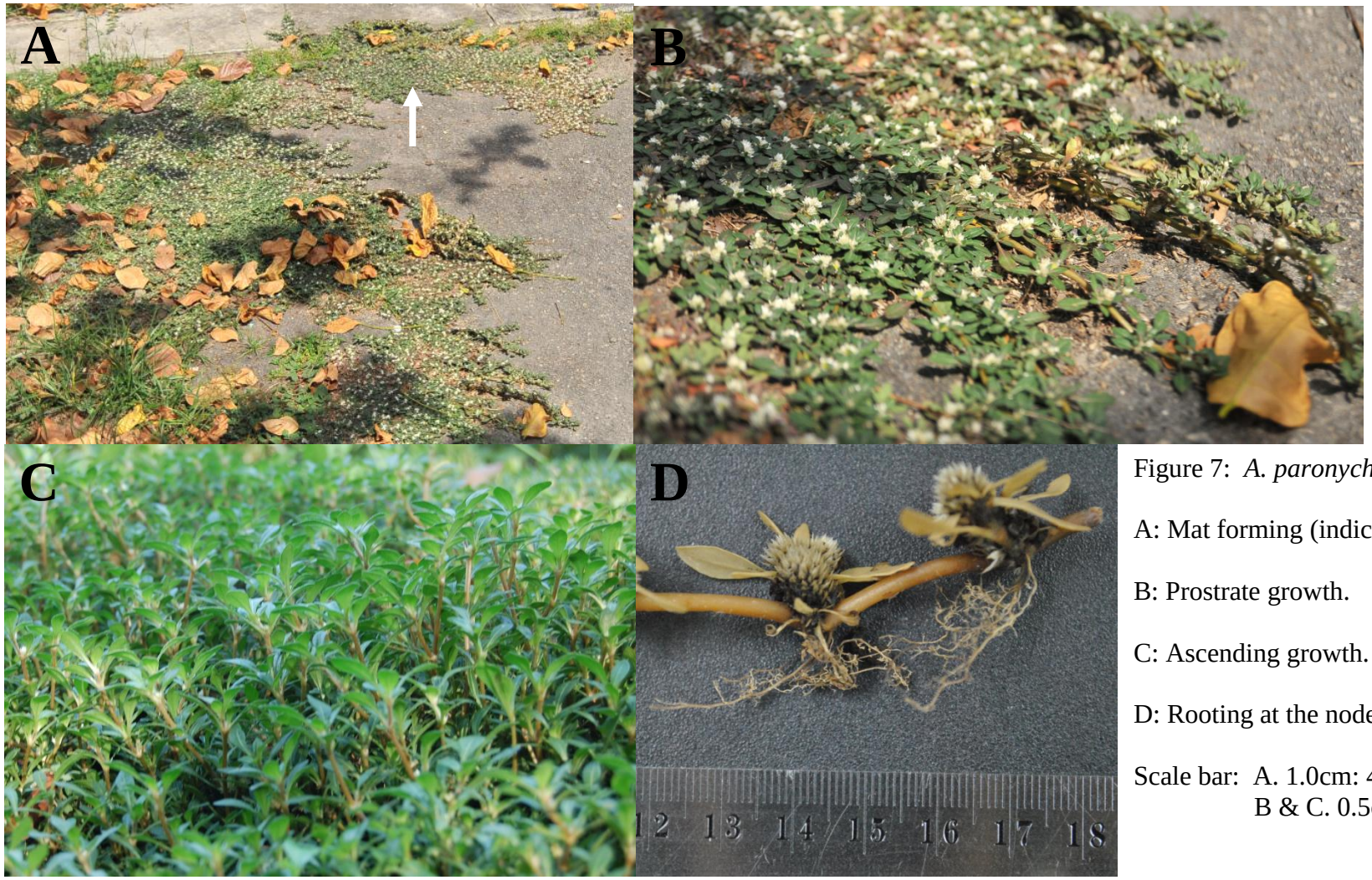


Figure 7: *A. paronychioides.* Growth habit.

A: Mat forming (indicated by arrow).

B: Prostrate growth.

C: Ascending growth.

D: Rooting at the nodes.

Scale bar: A. 1.0cm: 4.0cm
B & C. 0.5cm: 2.0cm

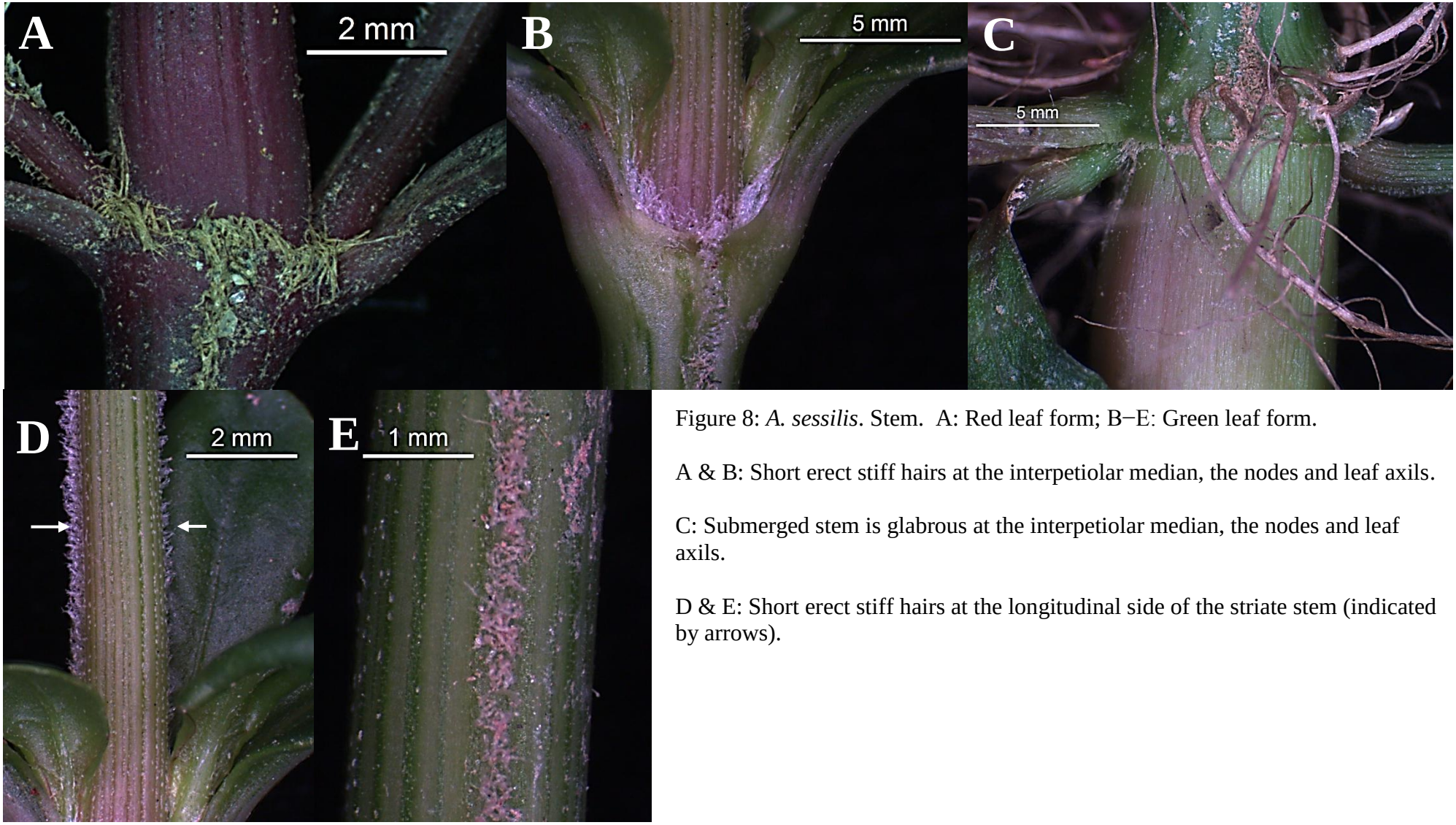


Figure 8: *A. sessilis*. Stem. A: Red leaf form; B−E: Green leaf form.

A & B: Short erect stiff hairs at the interpetiolar median, the nodes and leaf axils.

C: Submerged stem is glabrous at the interpetiolar median, the nodes and leaf axils.

D & E: Short erect stiff hairs at the longitudinal side of the striate stem (indicated by arrows).

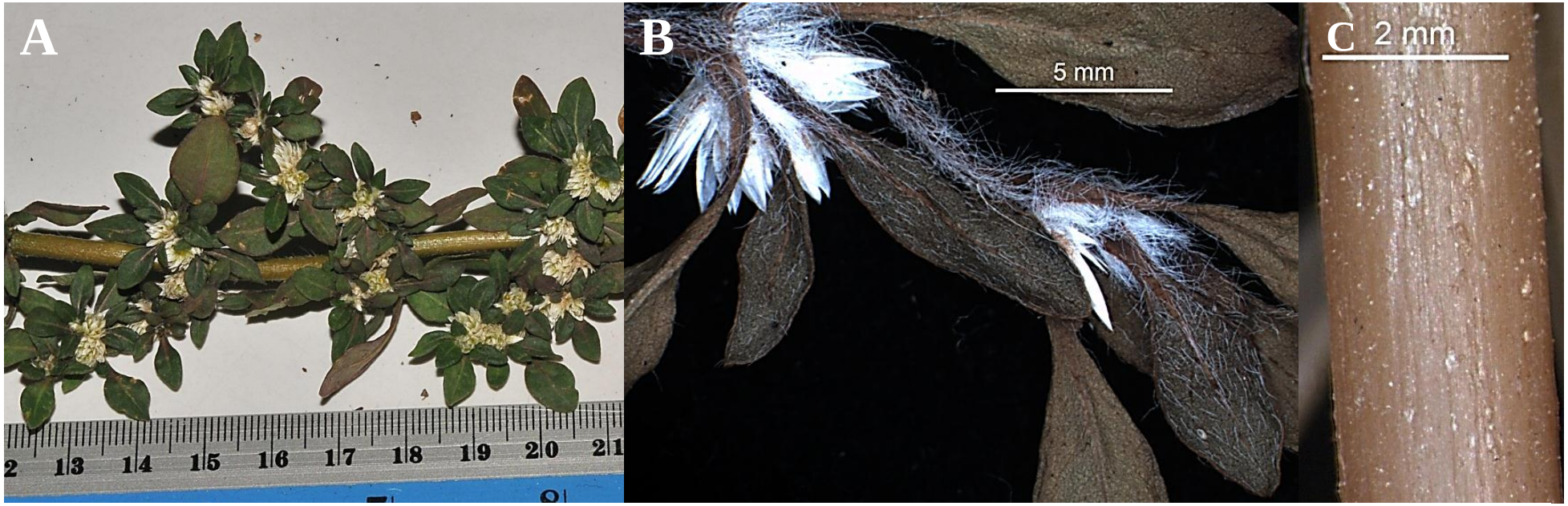
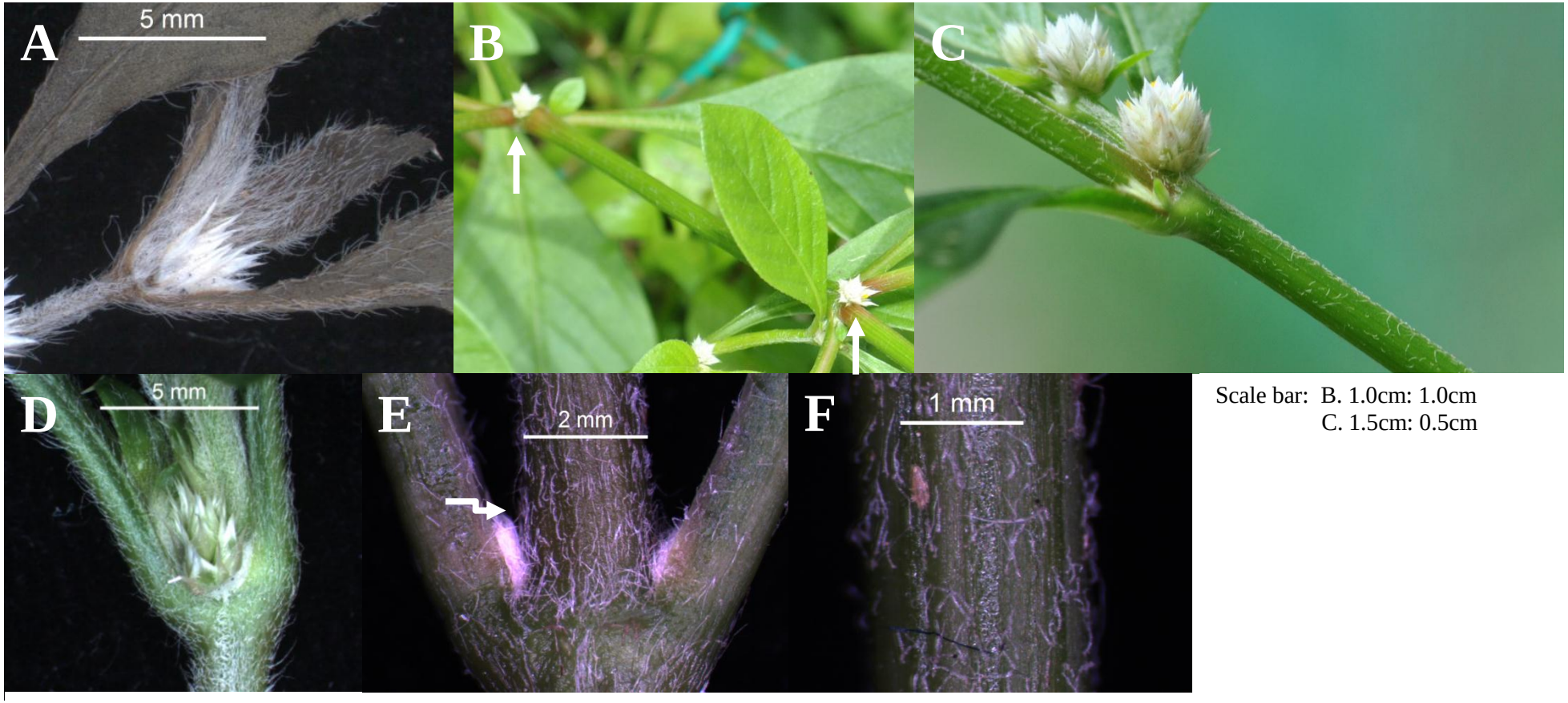


Figure 9: *A. paronychioides*. Stem. A: Fresh specimen; B–C: Dried specimens.

A: Light brown stem.

B: Young stem covered with flexuous long hairs.

C: Partially striate and glabrescent mature stem.



Scale bar: B. 1.0cm: 1.0cm
C. 1.5cm: 0.5cm

Figure 10: *A. ficoidea* and *A. bettzickiana*. Stem. A: Dried specimens; B – F: Fresh specimens.

A: Young stem densely covered with flexuous long hairs.
B: Green stem tinged with purple at the node (indicated by arrows).
C: Glabrescent mature stem and subglobose inflorescence.
D: Young stem densely covered with appressed straight or curved hairs.
E: Nodes tinged with purple at the node (indicated by arrow).
F: Nodes and internodes of the mature stem are moderately covered with hairs.

Figure 11*: A. sessilis*. Leaf shape. A: Red leaf form; B−D: Green leaf form.

Scale bar: A. 2.5cm: 3.5cm
B. 3.0cm: 2.9cm
C. 2.0cm: 3.5cm
D. 1.0cm: 0.50cm

A: Elliptic leaf of plant grown in dry area, along the road.

B: Ovate leaf of plant grown in dry area, at the waste grounds.

C: Elliptic leaf of plant grown in wet area, at edge of a ditch.

D: Narrow elliptic leaf of plant grown in wet area, in a canal.

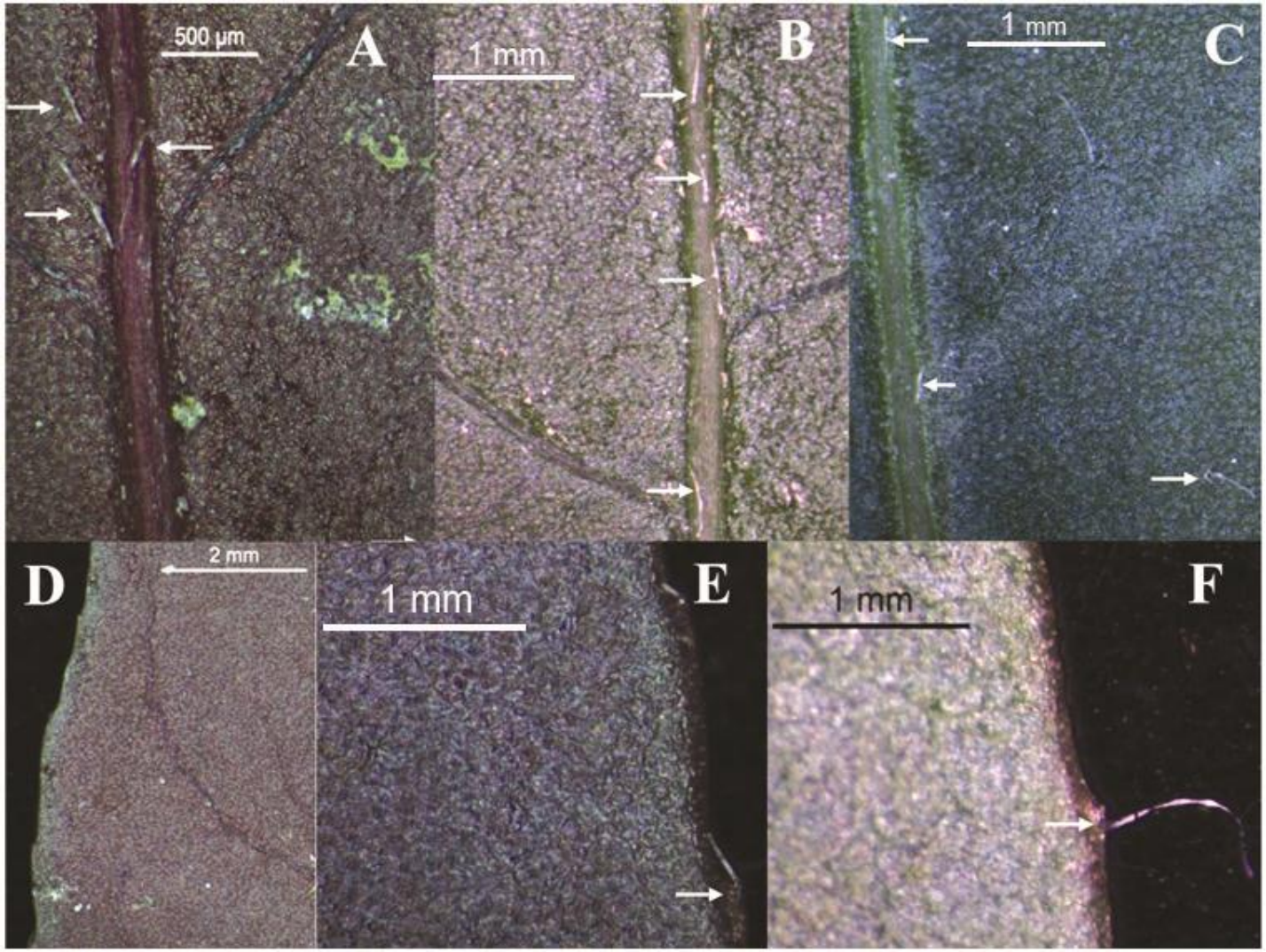


Figure 12: *A. sessilis*. Leaves. Indumentum and margin.
A, D & E: Red leaf form; B, C & F: Green leaf form.
A & B: Adaxial surface. Long hairs on the midrib (indicated by white arrows).
C: Abaxial surface. Fewer long hairs on the midrib (indicated by white arrows).
D−F: Leaf margin.
D: Sparsely serrated margin.
E & F: Fimbriate margin (indicated by white arrow).

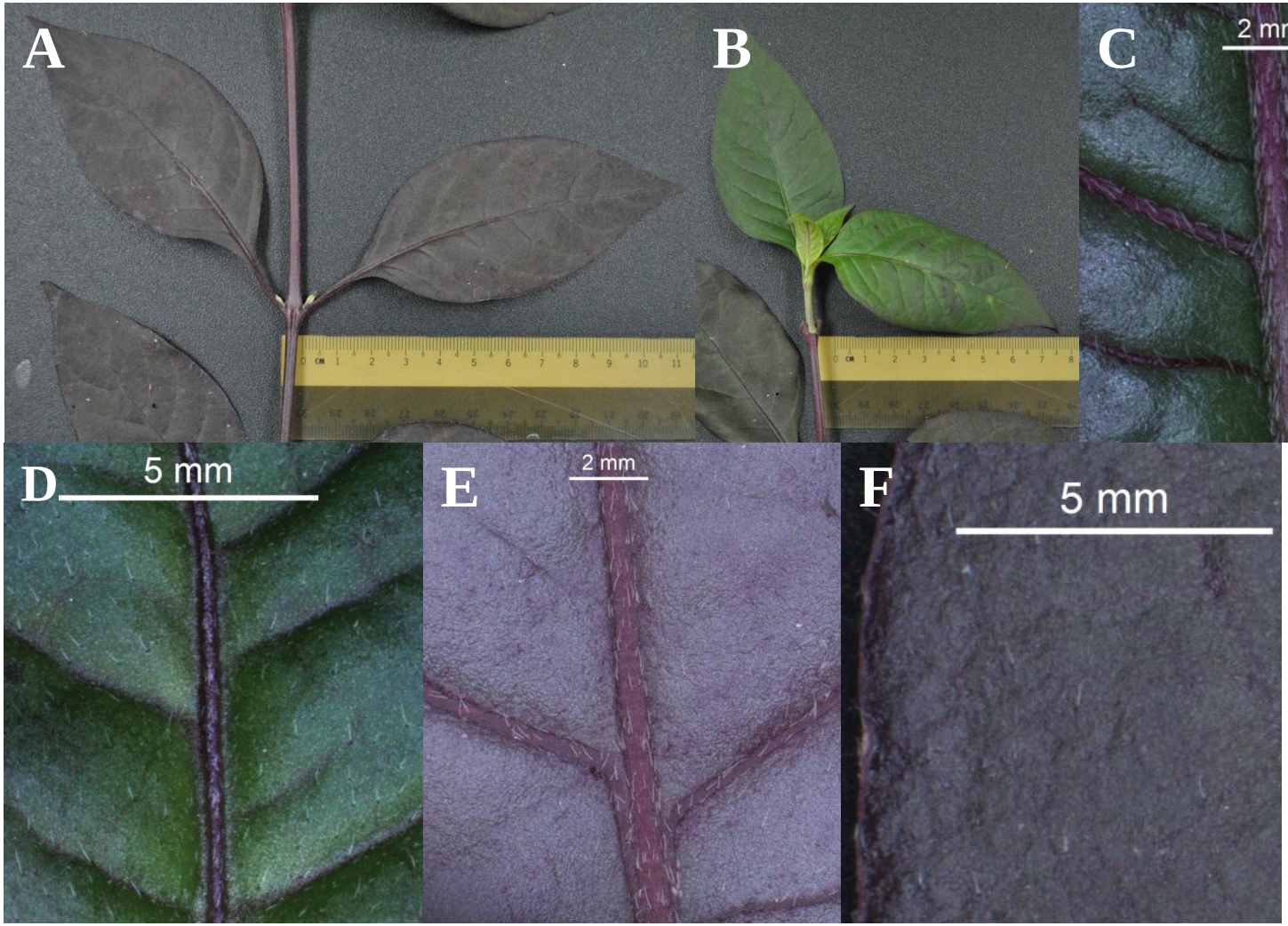


Figure 13: *A. brasiliana.* Leaves.

A: Opposite and simple leaves.
B: Young leaves green in colour.

C & D: Young leaf, E & F: Mature leaf. Appressed dentate hairs all over the lamina, especially on the midrib.

C & E: Abaxial surface.
D & F: Adaxial surface.

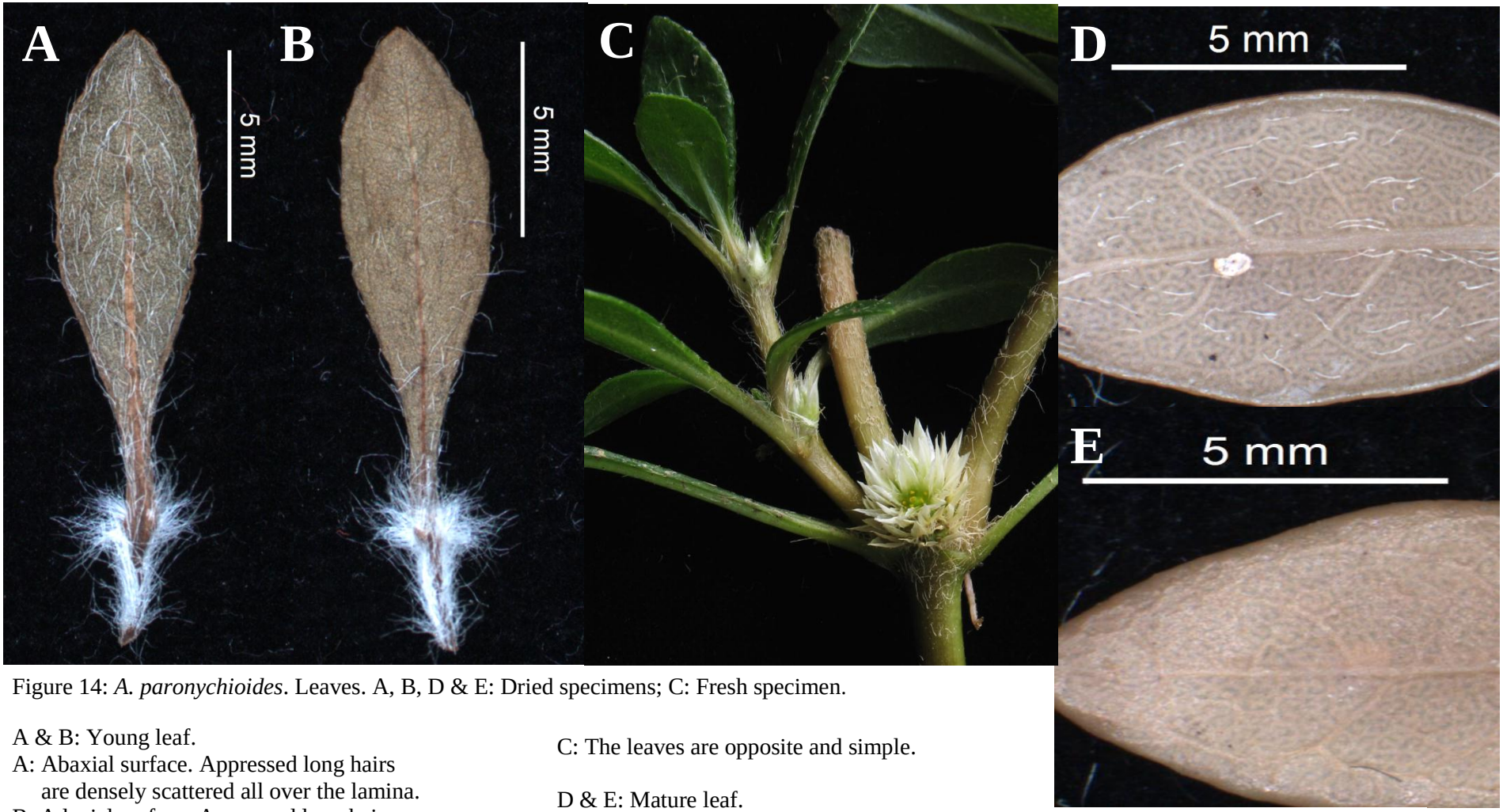


Figure 14: *A. paronychioides*. Leaves. A, B, D & E: Dried specimens; C: Fresh specimen.

A & B: Young leaf.
A: Abaxial surface. Appressed long hairs are densely scattered all over the lamina.
B: Adaxial surface. Appressed long hairs moderately scattered.

C: The leaves are opposite and simple.

D & E: Mature leaf.
D: Abaxial surface. Appressed long hairs moderately scattered all over the lamina.
E: Adaxial surface. Glabrescent.

Scale bar: C. 1.5cm: 1.0cm

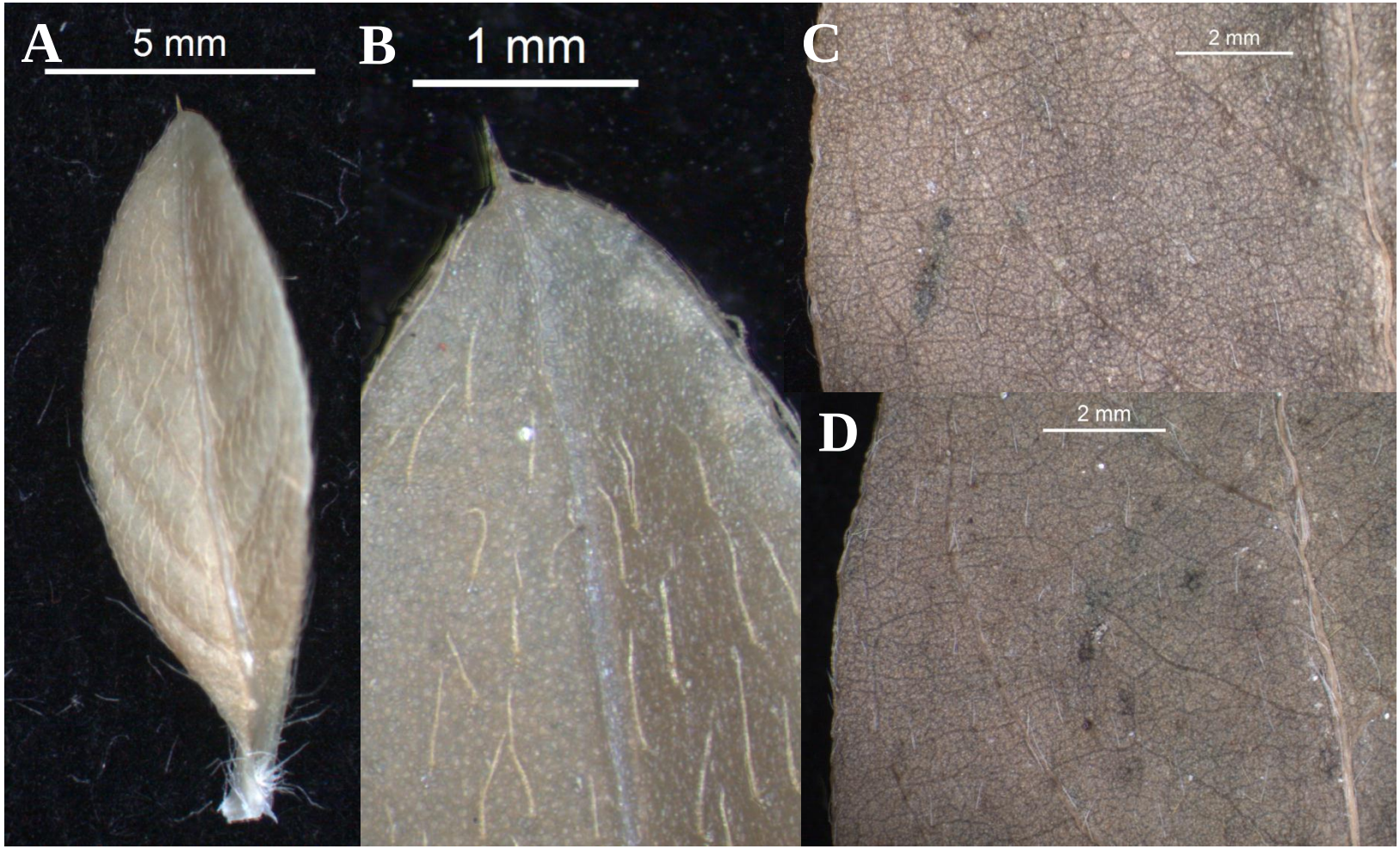


Figure 15:
A. ficoidea. Leaves.
A –D:
Dried specimens.

A & B: Young leaf.
Finely mucronate, appressed long hairs densely scattered on the lamina.
A: Abaxial surface.
B: Adaxial surface.

C & D: Mature leaf.
Glabrescent lamina.
C: Abaxial surface.
D: Adaxial surface.

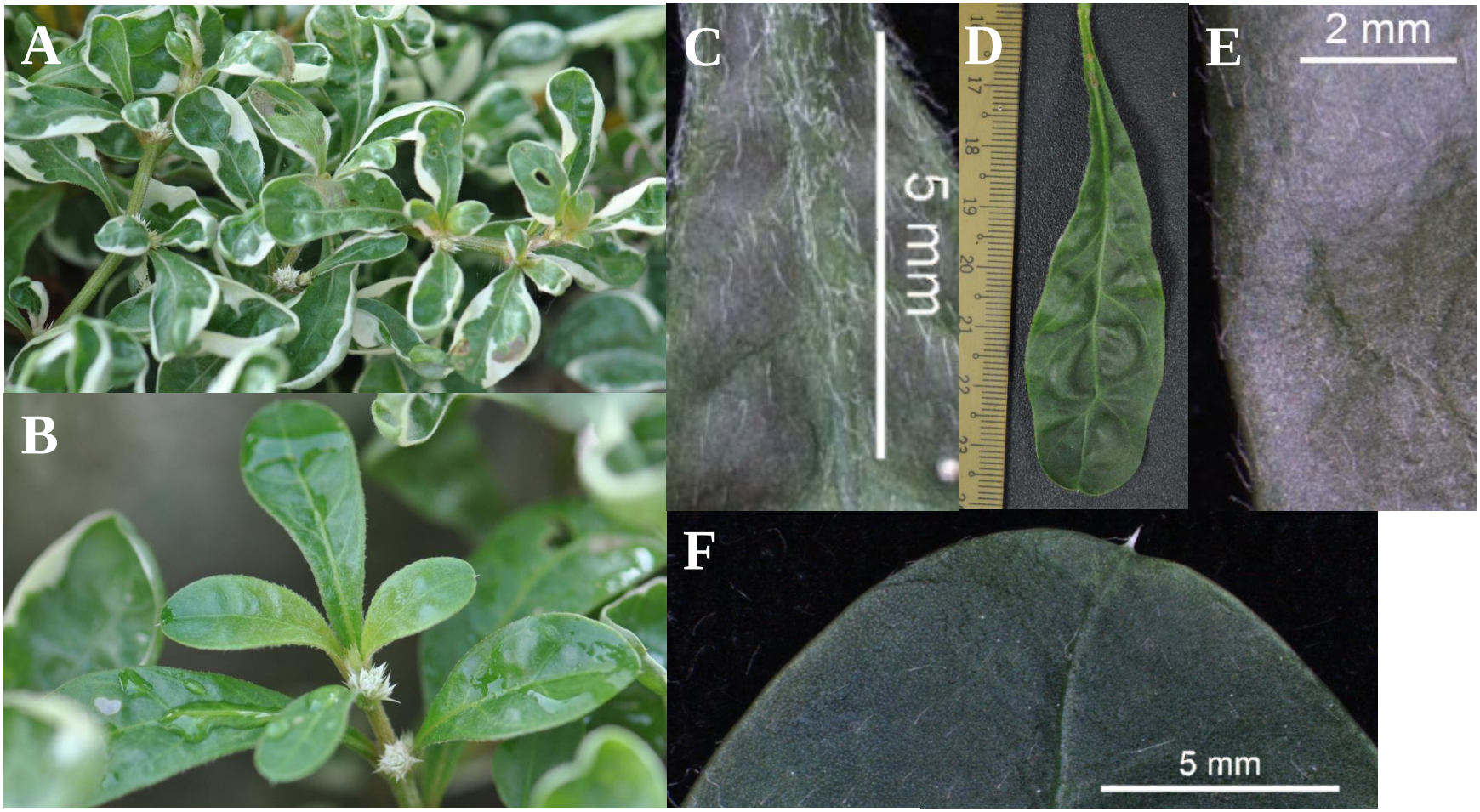


Figure 16: *A. bettzickiana*. Leaves.

Scale bar:
A. & B. 1.5cm: 2.5cm

A: Variegated leaves.
B: Opposite and simple leaves.
C: Young leaf. Adaxial surface. Appressed long hairs densely scattered on the lamina.

D−F: Mature leaf.
D: Oblanceolate, green and undulated leaf.
E: Abaxial. Margin entire with glabrescent lami
F: Adaxial surface. Obtuse apex with a fine mu

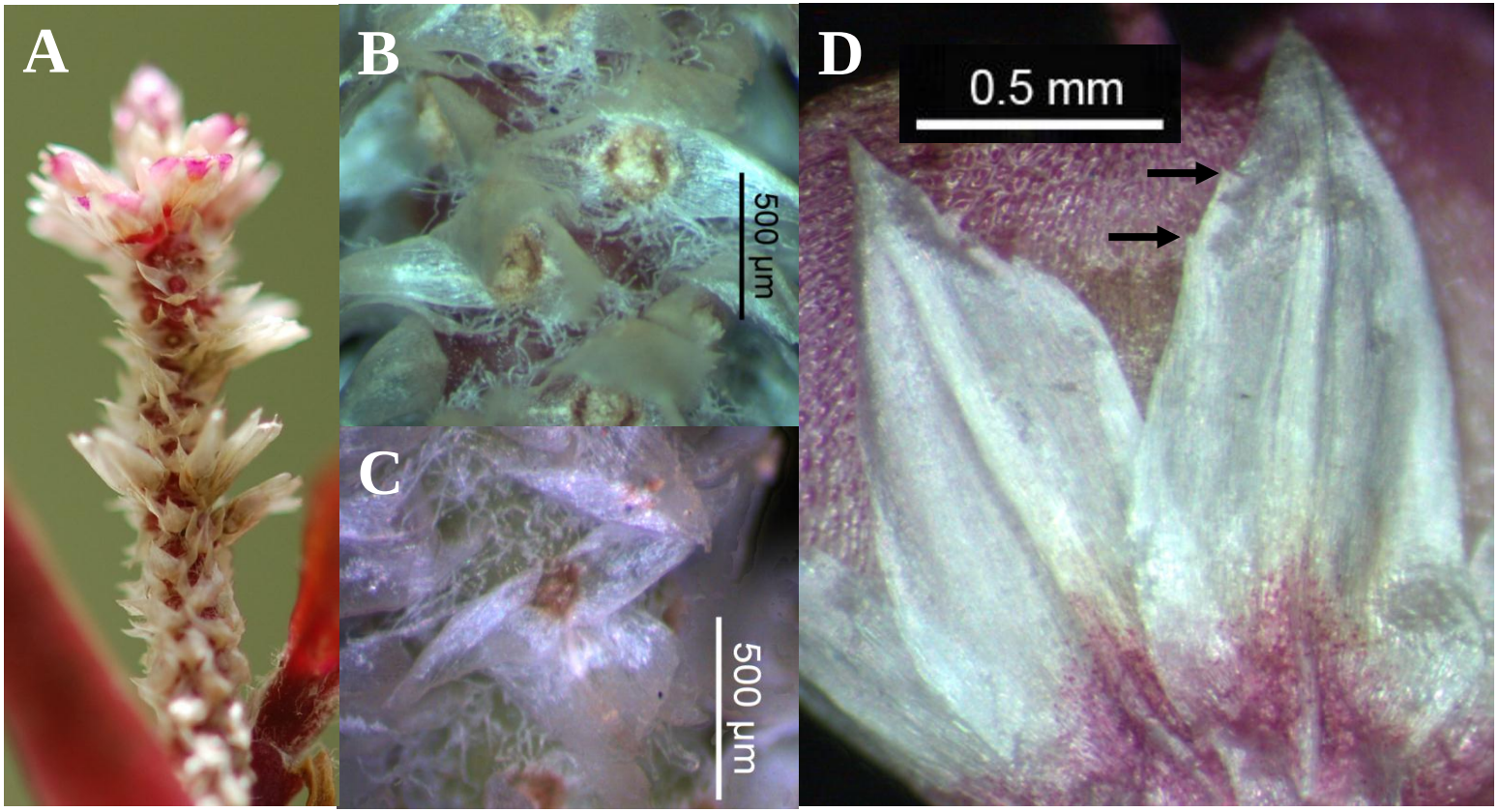


Figure 17: *A. sessilis*. Inflorescence, rachis, bract and petal. A, B & D: Red leaf form; C: Green leaf form.

A: Bracts attached on the rachis after the utricles have dropped.
B & C: Rachis is covered with white hairs.
D: Abaxial surface. Petals are one nerved, lanceolate with acuminate apex and sparsely denticulate margin (indicated by arrows).

Scale bar: A. 1.5cm: 2.0cm

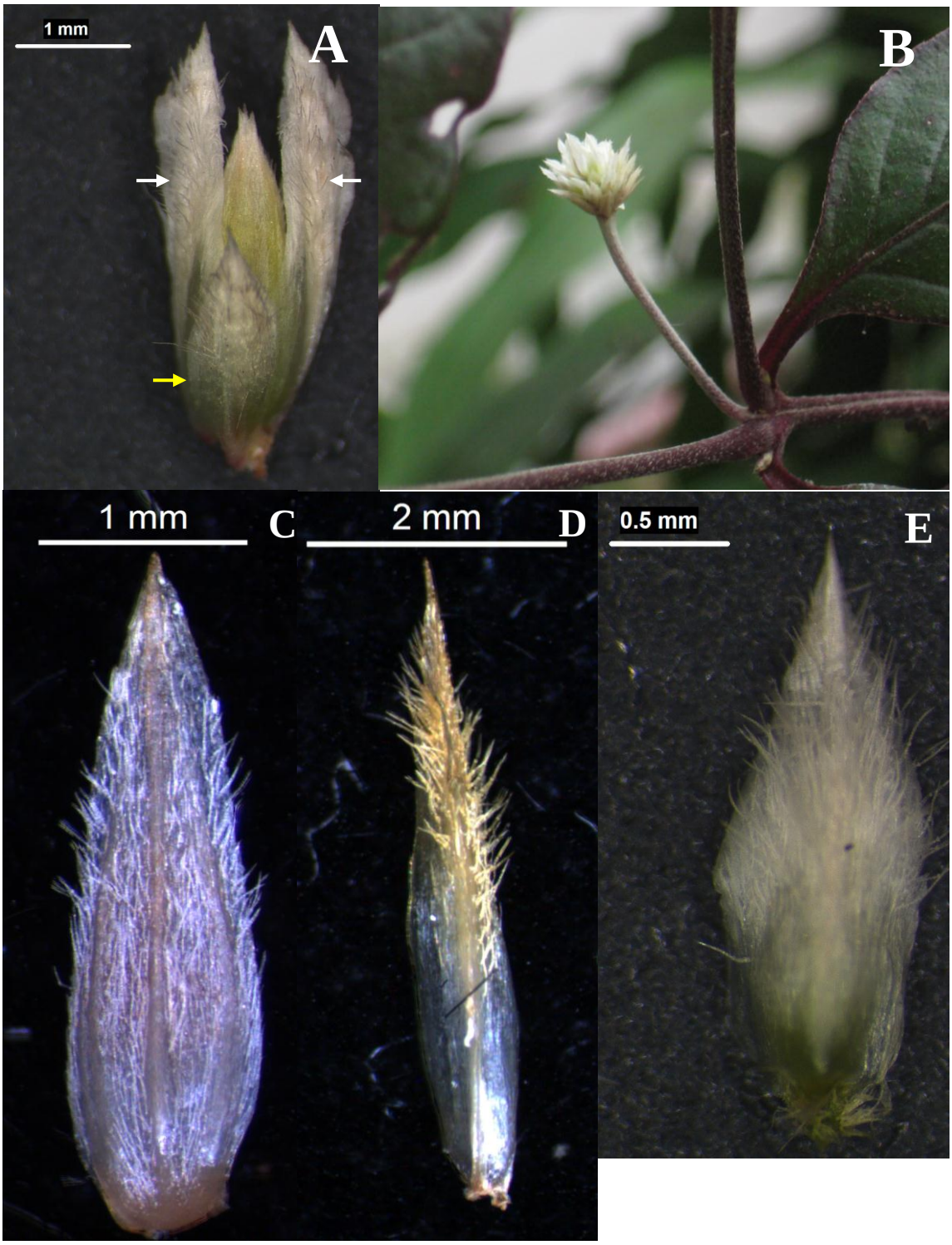


Figure 18: *A. brasiliana*. Bract, bracteoles and petal. A, B & E: Fresh specimens;
C & D: Dried specimens.

A: Mature flower bud with two bracteoles (indicated by yellow arrow) and one bract (indicated by white arrow).
B: Inflorescence with long peduncle.
C: Abaxial surface of a petal. The petal is 3-nerved and appressed hairs are all around.
D: Abaxial surface of a bracteole. The bracteole folded at the midrib has a sharp mucronate apex.
E: Abaxial surface of a bract. Long hairs projecting slantingly upwards at the upper part.

Scale bar: B. 2.0cm: 1.7cm

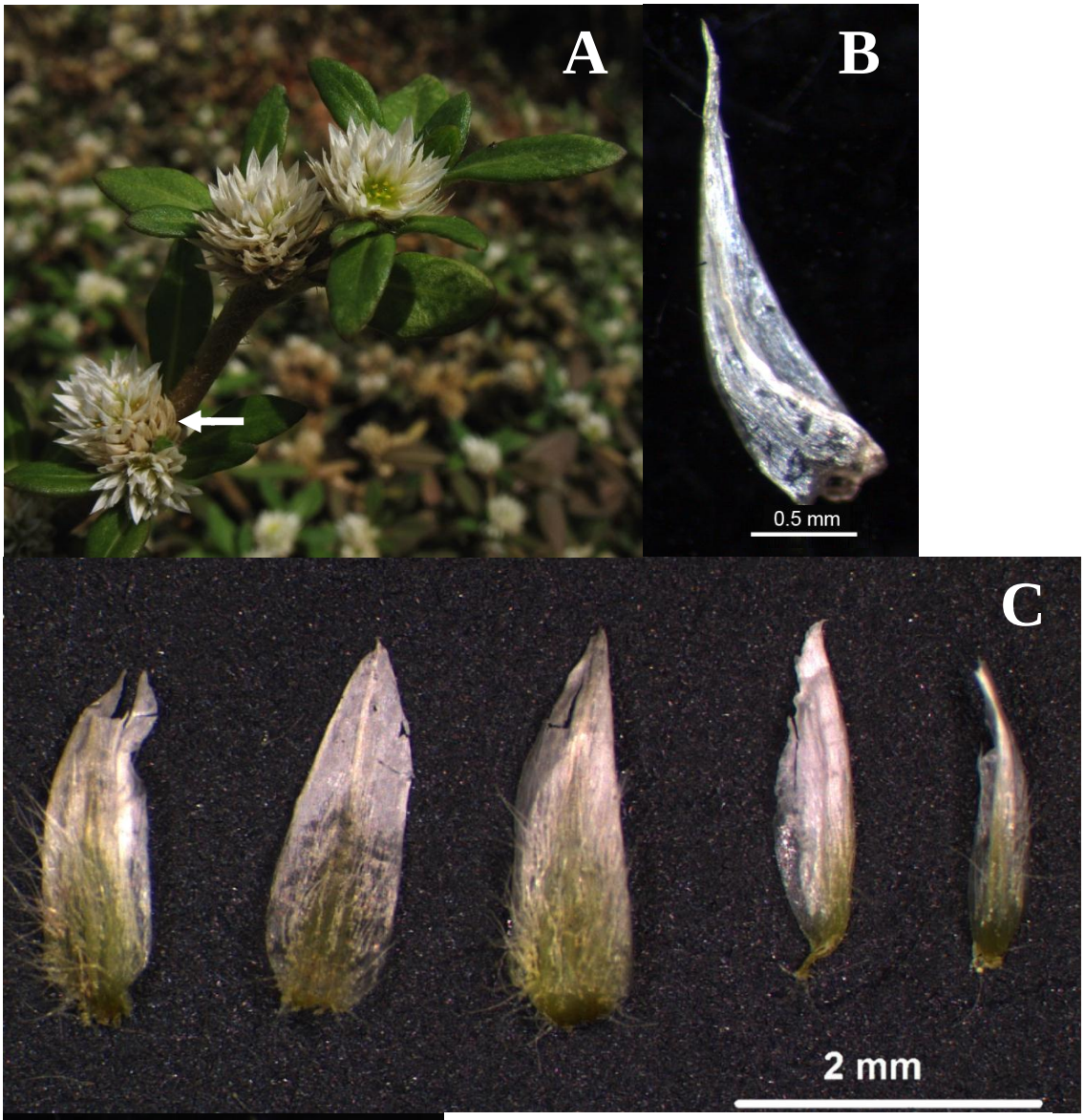


Figure 19: *A. paronychioides*. Inflorescence, bract and petal. A & C: Fresh specimens; B & D: Dried specimens.

A: Inflorescence is sessile, solitary or in a cluster of two (indicated by arrow) and subglobose.

B: Abaxial surface of a bract. The bract is convex lanceolate, scarious, glabrous and 1-nerved.

C: Five petals. First three from the left are the outer petals and the other two are the inner petals.

D: Abaxial surface of an outer petal. Three prominent nerves up to the middle part of the petal (indicated by arrow)

Scale bar: A. 3.0cm: 1.2cm

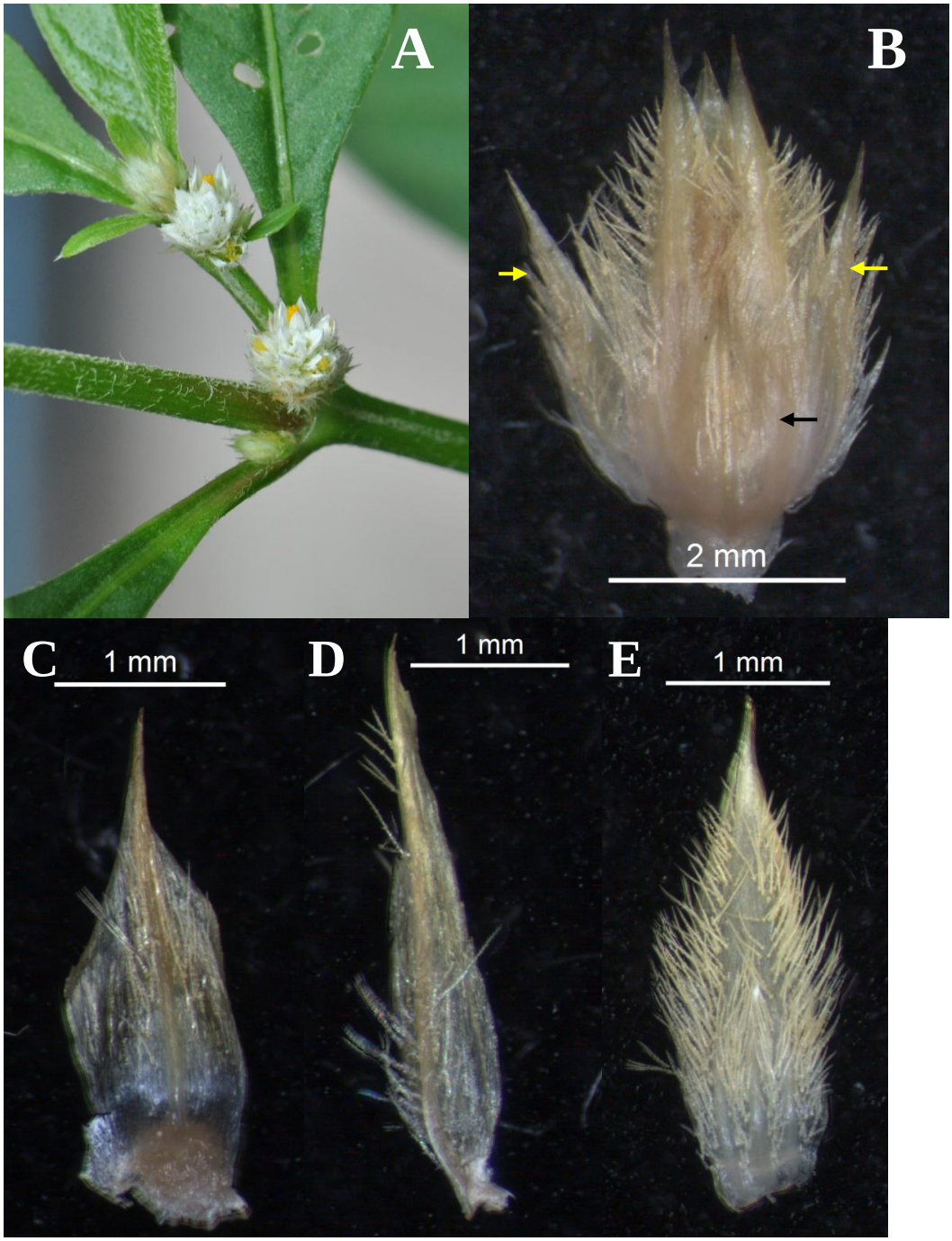


Figure 20*: A. ficoidea.* Flower bud, bracteoles and petal. A: Fresh specimen; B−E: Dried specimens.

A: Sessile, solitary and subglobose inflorescences.

B: Flower subtended by two bracteoles (indicated by yellow arrows) and a bract (indicated by black arrow).

C: Abaxial surface of a bract. The bract is ovate, scarious, 1-nerved with a excurrent midrib and mucronate apex.

D: Abaxial surface of an inner petal. The inner petal is lanceolate, scarious, 1-nerved and folded at the midrib. A few hairs are found along the midrib.

E: Abaxial surface of an outer petal. Long straight hairs densely projecting slantingly upwards along the petal.

Scale bar: A. 1.0cm = 0.5cm

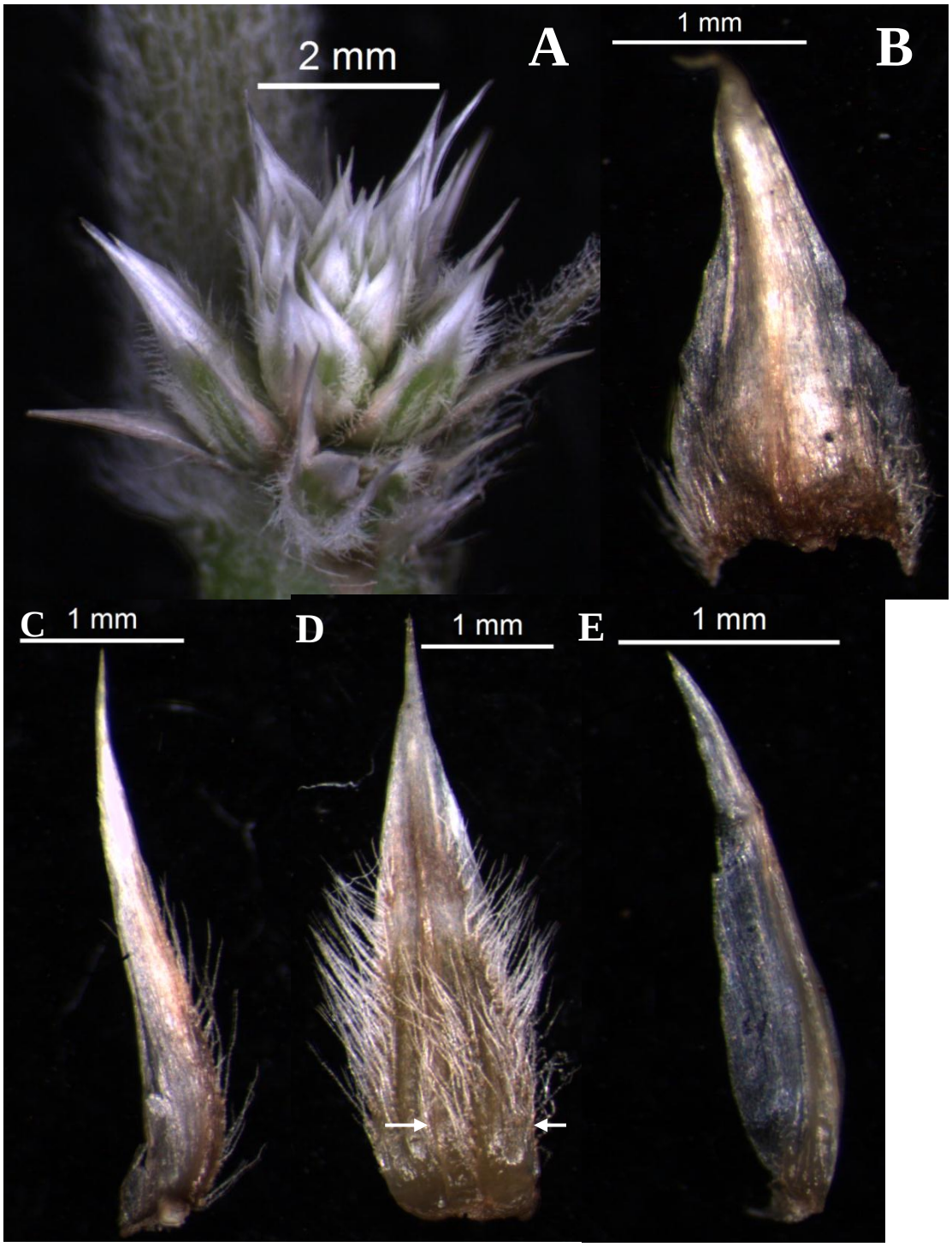


Figure 21: *A. bettzickiana*. Inflorescence, bract, bracteoles and petals.

A: Fresh specimens; B−E: Dried specimens.

A: Sessile, solitary and subglobose inflorescence.

B: Abaxial surface of a bract. Ovate, scarious, 1-nerved bract. Moderately hairy at the lower part (indicated by arrow).

C: Abaxial surface of a bracteole. Lateral view. Lanceolate, scarious, 1-nerved bracteole. Long straight hairs at the lower part.

D: Abaxial surface of an outer petal. Three distinct convergent nerves up to the middle part (indicated by arrows). Long, straight hairs densely projecting slanting upwards.

E: Abaxial surface of an inner petal. Lateral view. The inner tepal is scarious, glabrous and folded at the midrib.

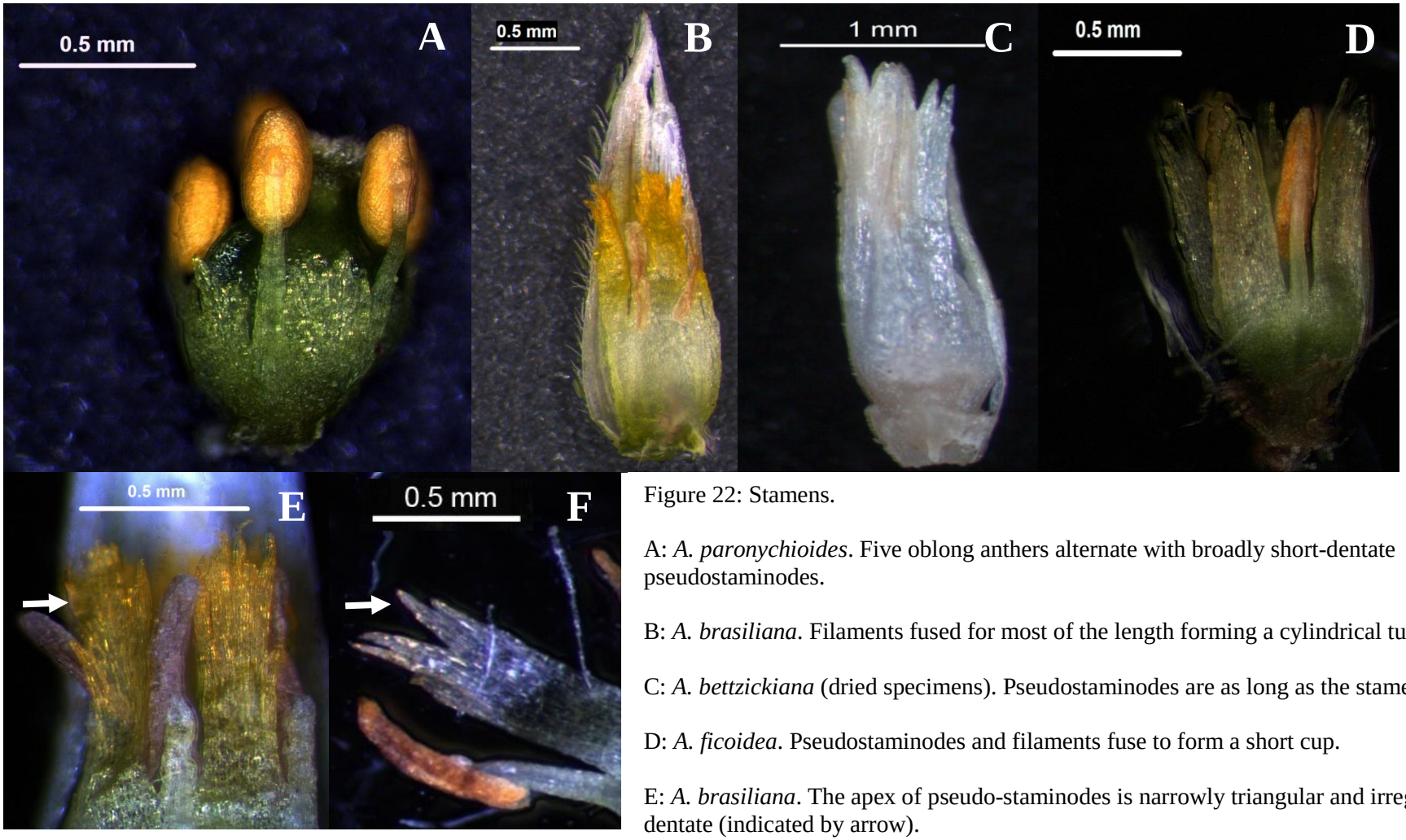


Figure 22: Stamens.

A: *A. paronychioides*. Five oblong anthers alternate with broadly short-dentate pseudostaminodes.

B: *A. brasiliana*. Filaments fused for most of the length forming a cylindrical tube.

C: *A. bettzickiana* (dried specimens). Pseudostaminodes are as long as the stamens.

D: *A. ficoidea*. Pseudostaminodes and filaments fuse to form a short cup.

E: *A. brasiliana*. The apex of pseudo-staminodes is narrowly triangular and irregularly dentate (indicated by arrow).

F: *A. bettzickiana.* Shrunken anther and yellow pseudostaminodes (indicated by arrow).

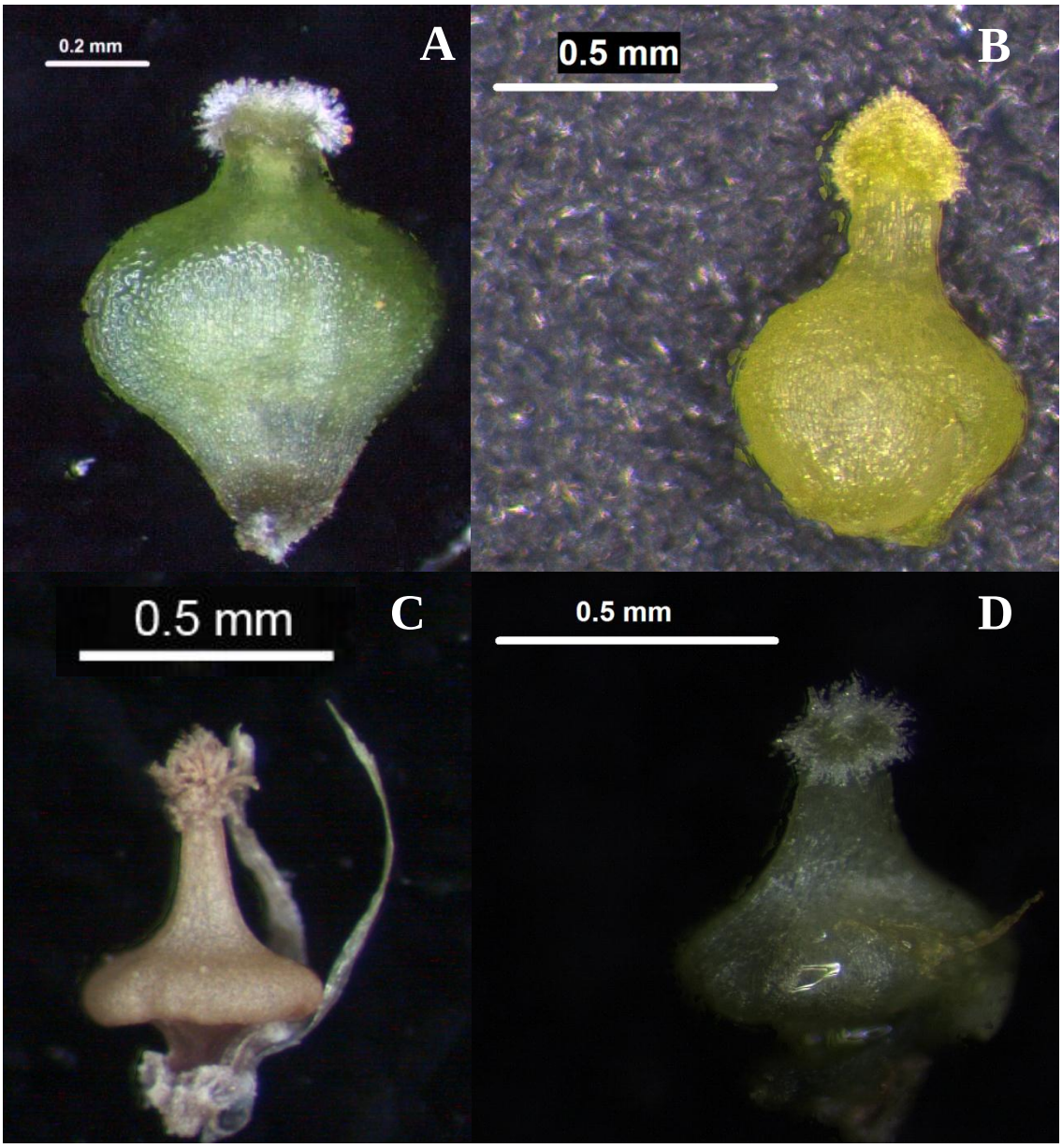


Figure 23: Pistil.

A: *A. paronychioides*. Obcordate ovary.

B: *A. brasiliana*. Obovoid ovary.

C: *A. bettzickiana* (dried specimens). Subconical ovary.

D: *A. ficoidea*. Subconical ovary.