

Vascular Plants of Williamson County

Argyrosma dealbata – POWDERY CLOAKFERN [Pteridaceae]

Argyrosma dealbata (Pursh) M. Windh., POWDERY CLOAKFERN. Perennial herb, rhizomatous, fibrous-rooted, rosetted, with ascending leaves from short rhizome, in range < 12 cm tall (including persistent dead leaves); shoot with only basal leaves, foliage monomorphic, initially sterile later forming sporangia on lower surface, lacking nonglandular and glandular hairs; emerging leaves hooked at growing tips (not coiled, i.e., vernation not circinnate); rhizome in range in shaded crevices and niches of coral-reef limestone boulders and outcrops, compact, upright, and short, to 3 mm diameter, densely covered with papery scales (also lower petioles), scales persistent eventually breaking, long-acuminate, mostly $1.5\text{--}3 \times 0.3$ mm, brown with black cell outlines, lacking darker central stripe, entire or essentially so. **Leaves (fronds):** helically alternate, odd-3-4(-5)-pinnately compound with blade \pm deltate in outline, ultimate segment mostly 3-lobed with a larger terminal blade and a subopposite pair of basal lobes, principal pinnae 5-lobed or 3-lobed to 12 mm long, petiolate, glabrous; petiole (stipe) cylindrical, in range to 100 mm long, mostly 0.2 mm diameter but often somewhat swollen to 0.5 mm near rhizome, dull chestnut brown to glossy blackish red; primary petiolules diverging at acute angles, petiolelike, straight from fork, secondary and tertiary petiolules progressively shorter and straight; blade portions mostly ovate (oblong), terminal lobe 4-7 mm long and to 3 mm wide (flattened), tapered at base and rounded to obtuse at tip, basal lobes elliptic or ovate to oblong and < terminal lobe and blunt acute to obtuse, pinnately veined with midvein raised and lateral veins sometimes slightly raised on lower surface, upper surface bluish light green slightly glaucous, inrolled margins not glaucous, lower surface dotted with white deposits of wax (farina) on exposed tissue. **Sori:** submarginal on lower surface, not evident because sporangia spaced (not touching) 0.3-0.4 mm from unrolled blade margin in 1 crude row, before dehiscent most sporangia covered or partially concealed by down-curved, light green wavy blade margin (false indusium), glabrous. **Sporangia:** short-stalked 0.3-0.4 mm from unrolled blade margin, spheroid, ± 0.20 mm, brown, the dehiscence mechanism (annulus) ringlike, each sporangium with 64 spores.

A. C. Gibson