Common Name: POOL SPRITE

Scientific Name: *Amphianthus pusillus* Torrey

Other Commonly Used Names: snorkelwort

Previously Used Scientific Names: none

Family: Scrophulariaceae (snapdragon) or Plantaginaceae (plantain)

Rarity Ranks: G2/S2

State Legal Status: Threatened

Federal Legal Status: Threatened

Federal Wetland Status: OBL

Description: Aquatic, annual **herb** with two types of leaves. **Floating leaves** less than ¼ inch (3 - 5 mm) long, oval, paired at the end of a thread-like stem. **Submerged leaves** in a rosette at the

top of a tiny, underwater stem, each leaf less than ¼ inch (up to 5 mm) long and with a pointed tip. **Flowers** less than ¼ inch (3-4 mm) long, white to pale purple, with a short tube and 5 spreading lobes; flowers are held between the floating leaves and also among the submerged rosette leaves. **Fruit** less than ⅛ inch (3 mm) wide, somewhat flattened, with 2 lobes.

Similar Species: Water starwort (*Callitriche heterophylla*) also occurs in pools on granite outcrops; its floating leaves are spoon-shaped and in whorls or rosettes rather than pairs; submerged leaves are narrow and scattered along the underwater stem.

Related Rare Species: There are no other species in this genus.

Habitat: Shallow, flat-bottomed depressions (solution pits, vernal pools) on granite outcrops, with thin, gravelly soils and winter-spring inundation. Pools must be deep enough to hold water for several weeks and must be in full sun.

Life History: Pool sprite is an annual that completes its life cycle – seed germination, leaf emergence, flowering, fruit production, and death – in just 3 or 4 weeks. In dry years, it may not appear at all, the seeds lying dormant until wetter weather. The depth or duration of water in the pools needed for germination is not known. Typically, seeds germinate following the increasingly heavy rains of late fall or early winter; young plants grow slowly during the winter but begin to form flower buds by early February. Growth accelerates as temperatures warm. The length of pool sprite's stem depends on the depth of the water; the stem will continue to elongate until the paired leaves and flower are floating on the surface of the pool. By late February, flowering of both floating and submerged flowers is well underway, peaking in mid-March. As the pools begin to dry in April, the usually closed submerged flowers are exposed and begin to open. All stages of the plant may be visible in April, from buds to mature fruit, with larger plants having from 10 - 15 flowers and fruits. As the pools dry up, the fruits shed their seeds, and plants wither and disappear by late May and June. Pool sprite may also produce seeds asexually, a reproductive method which reduces genetic diversity and population viability.

Survey Recommendations: Surveys are best conducted during flowering (March–April) and fruiting (April–May); plants are visible in the winter and spring then wither and disappear after fruiting.

Range: Piedmont of Georgia, South Carolina, and Alabama.

Threats: Quarrying, development, trash dumping, and off-road vehicle use

Georgia Conservation Status: Pool sprite occurs on 7 preserves and parks; total acreage of all pools with pool sprite is less than one acre.

Conservation and Management Recommendations: Protect granite outcrops from quarrying, trash dumping, and off-road vehicle use. Direct foot traffic away from rare plant sites and rock pools. Create buffers and limit development around outcrops.

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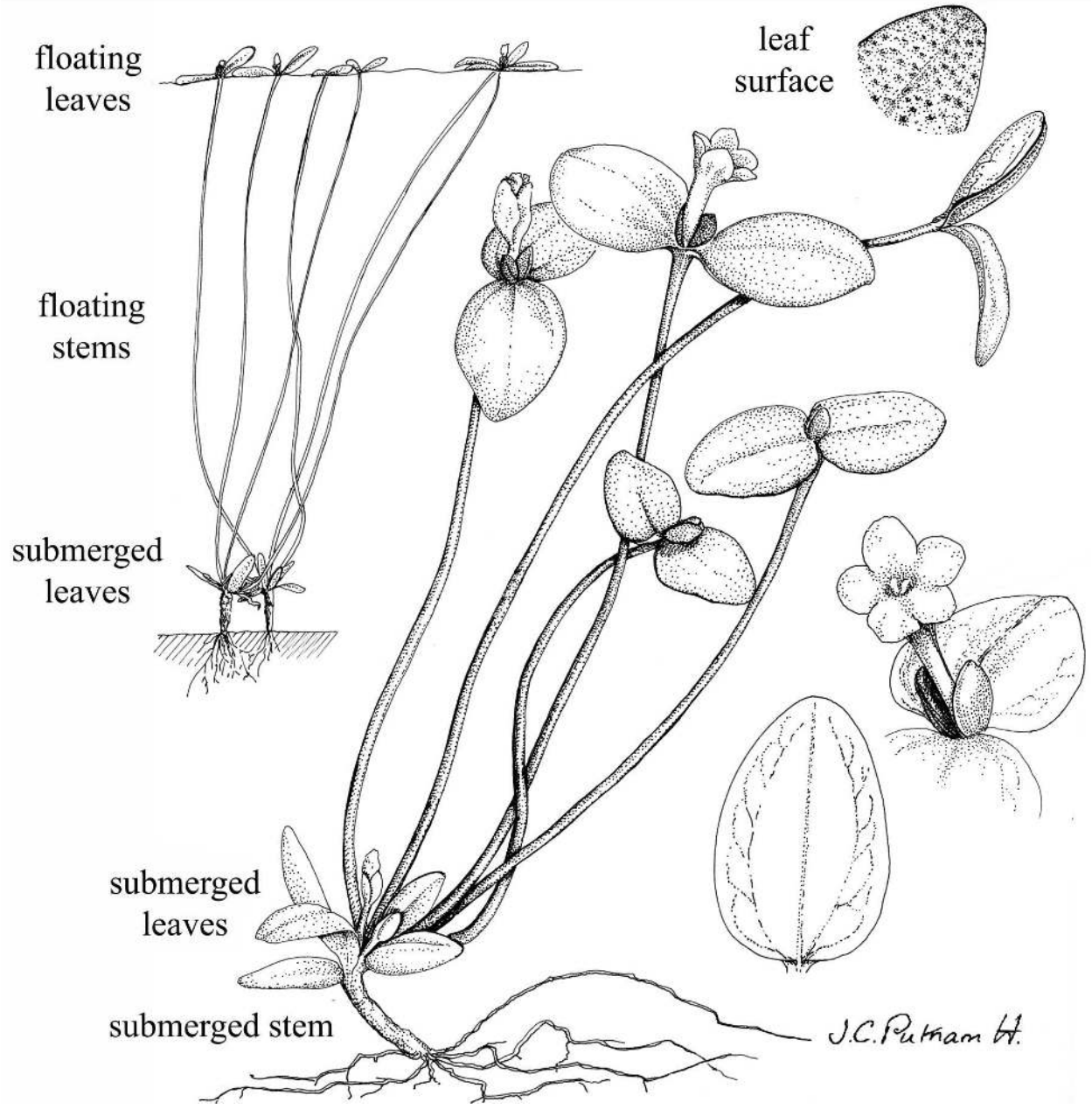
Author of species account: Linda G. Chafin

Date Compiled or Updated:
L. Chafin, Dec. 2007: original account
K. Owers, Jan. 2010: updated status and ranks, added pictures

POOL SPRITE
Amphianthus pusillus

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