

Goldenrod Fern

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Pityrogramma trifoliata (synonym: *Trismeria trifoliata*) is a member of the Pteridaceae native throughout a wide range in southern Florida, the Greater Antilles, Mexico, Central America, and South America. Plants with wide ranges tend to be adaptable and that is the case with this species, which appears to be expanding its range in Florida as a colonizer of disturbed, wet areas. Its ornamental properties and cultivation are discussed and an update is provided to the original article published in *The Palmetto* in 1993.

KEYWORDS: *Pityrogramma*, Pteridaceae, Florida, native fern, perennial.

I have found that there are two types of native plants in the garden: those that will not grow and those that will not stop growing. Generally, the former are adapted for an existence on unusual substrates, such as seepage slopes, deep sands or extremely acidic peaty soils, which are difficult to duplicate in a garden setting. Growing such plants is a special challenge and their successful cultivation is a cherished joy. However, I do not take the easy growers for granted and I often marvel at their simple ability to thrive without the usual comforts provided to garden plants: soil amendments, fertilizer, and supplemental watering.

My garden plot is small, indeed, miniscule, and I must be very careful not to introduce rampant growers. Experience has taught me that clump forming plants, which can be easily divided or pruned to size, are more appropriate for small gardens. To provide texture and variety, I have discovered an attractive native fern that, while large and vigorous, is well behaved in the small garden. This fern has the unusual common name of *goldenrod fern* and is known botanically as *Trismeria trifoliata*.

Goldenrod fern grows throughout a vast range in the New World tropics: from south Florida and the Greater Antilles in the Caribbean, and from Mexico to Argentina in continental America. Until recently, it was believed to be confined to the southern tip of Florida and it is not mentioned in Richard Wunderlin's *Guide to the Vascular Plants of Central Florida*. However, this plant appears to be expanding its range northward and I have now found three colonies in the area covered in Wunderlin's *Guide*. Goldenrod fern favors moist sites in full sun to partial

shade and these northern colonies match such a description: One colony was found in a moist roadside ditch adjacent to a swamp in Lee County; another along a canal bank behind a shopping center in Palm Beach County; and a third colony was located near the shore of an artificial lake in a reclaimed shell rock mine, also in Palm Beach County.

While an attractive plant in the wild, goldenrod fern becomes truly magnificent in cultivation. It is a large fern that can exceed six feet in height, although half that size is the usual height in wild Florida plants. The leaves, which are narrowly oblong and divided into numerous leaflets, are unusual and unlike those of any other native fern. In mature plants, each leaflet is further divided into 2-3 sections. The leaflets are held perpendicular to the leaf axis with its sections widely spreading in various directions. Thus, the leaf is not flat in two dimensions like most fern leaves, but is three dimensional. Of course, this quality is lost if the leaves are pressed and it is not apparent in herbarium specimens. The leaves are a rich glossy deep green color, and this, combined with the arrangement of the leaflets, leads to a vague similarity to goldenrods. It especially reminds me of one of our dry pineland goldenrods, *Solidago chapmanii*. However, goldenrod fern is infinitely more refined, at least vegetatively, than any true goldenrod.

Goldenrod fern is easily grown from spores, although this is a rather involved and time-consuming process. Luckily, it is also readily grown by separating larger plants with multiple growths into smaller divisions using a sharp knife. Plants present no special problems in cultivation and adapt to regular garden conditions, i.e., rich loamy soil, adequate water and shelter from excessive winds. This fern grows from a short underground rhizome, forming clumps that look well even in traditional, more formal garden schemes. Its

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growth form contrasts with many other native ferns that grow from long, creeping rhizomes. The latter can spread very far from where originally planted, sometimes aggressively so, and I find that vigorously spreading ferns are better suited to wilder portions of a garden.

Because of the unexpected adaptability of this fern, I suspect that the northward expansion of its range will continue. Its cold tolerance is unknown and it will be interesting to see just how far north it will eventually reach.

UPDATE TO THE ORIGINAL ARTICLE

- Goldenrod fern is now generally treated “as a specialized offshoot of the core group of species in the genus [*Pityrogramma*]” (Yatskievych & Windhamand 1993) and most references now list it as *Pityrogramma trifoliata*.
- The article stated that *Pityrogramma trifoliata* was not colonial; however, that is not correct. With

continued cultivation, and increased maturity, it was observed that plants produce adventitious plantlets from the tips of the roots and, by this means, sizeable colonies can be built up. This was also observed in the wild.

- Some plants of *Pityrogramma trifoliata* have a golden powdery meal (yellow farina) variably covering the lower surface of the fertile leaves. None have been reported from Florida in the formal botanical literature (*ibid*); however, I have seen plants with yellow farina in the wild in Florida.

REFERENCES

- YATSKIEVYCH, G. AND M.D. WINDHAMAND. 1993. *Pityrogramma trifoliata*. In Flora of North America Editorial Committee (eds.) *Flora of North America: Volume 2*. New York: Oxford University Press. Internet: http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500962 (visited 16 July 2009).

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