Ferns of the Bahamas Including Caicos and Turks Islands

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The recent discovery of *Osmunda regalis* L. var. *spectabilis* (Willd.) A. Gray on Great Abaco *(Correll 42810)* represents another family of plants new to the Bahamian archipelago. This, along with the earlier discoveries of *Thelypteris ovata* R. St. John *(Correll & Godfrey 41486)* on North Andros (determined by Alan R. Smith) and *Schizaea poeppigiana* Sturm in a dense broadleaf coppice on Great Abaco *(John Popenoe & Jack Patterson 14)*, brings to six the number of fern species that have been added to the Bahama Islands flora since the 1920 publication of Britton and Millspaugh's "The Bahama Flora." Those species previously reported as new to the flora are *Pteris vittata* L. *(Gillis 7323* and *Popenoe 132)* from Great Abaco, *Thelypteris dentata* (Forssk.) E. St. John *(Correll 40856)* from Great Exuma, and *Trismeria trifoliata* (L.) Diels *(Gillis 7328A* and *Popenoe 131)* from Great Abaco. Undoubtedly, other fern additions can be expected from the Islands as exploration continues. To date, 36 species of true ferns and fern allies are considered to be in the flora of the Bahama Islands.

The *Osmunda* was found growing in fresh-water marshes and ponds covering several acres just below a north-south ridge in an open pineland (called a "pineyard" by local people) a short distance north of Marsh Harbour. I counted more than twenty clumps of plants. Some of the clumps had survived burning that had occurred when the ponds were desiccated during the dry season. In addition to the *Osmunda,* I have found *Acrostichum danaeifolium* Langsd. & Fisch., *Trismeria trifoliata,* and *Blechnum serrulatum* L. C. Rich. in wet habitats on various islands. Although it was included by Britton and Millspaugh as being in the flora, there is some question regarding the actual occurrence of *Acrostichum aureum* L. in the Bahamas.

Several "moisture-loving" species of limited occurrence have been found only on Inagua *(Marsilea nashii* Underw.), Acklin's and South Caicos *(M. vestita* Hook. & Grev.), and Abaco and Andros *(Selaginella armata* Baker). A continued search is being made to determine if these species occur in other areas of the Bahamas.

Distribution of some fern species in the Bahama Islands follows a distinctive ecological pattern, but others seem to have no definite pattern. With or without the occurrence of fires in the pineyards of *Pinus caribaea* Morelet that are found on Abaco, Andros, Grand Bahama, and New Providence, *Anemia adiantifolia* (L.) Swartz and *Pteridium aquilinum* var. *caudatum* (L.) Sadeb. are essentially uncritical in their habitat requirements. The latter species becomes an obnoxious weed in some areas by forming almost impenetrable masses. Only in marshy areas and in intervening dense broadleaf coppices are these species entirely lacking or greatly reduced in occurrence.

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Orchids and bromeliads grow in the coppices along with such species as *Polypodium polypodioides* (L.) Watt, *P. heterophyllum* L., *P. phyllitidis* L. and its var. *latum* (Moore) Proctor, *Paltonium lanceolatum* (L.) Presl, and *Psilotum nudum* (L.) Pal. Beauv. These occur on tree trunks, fallen logs, and on exposed rock ledges and walls.

The solution pits, sink-holes, "banana holes," or whatever one may call them, that are formed in the aeolian limestone that is the primary stratum for the Bahama Islands, whether in pineyards, broadleaf evergreen coppices, savannas, or dwarf coastal coppices, vary in width and depth from a few feet to as much as twenty feet or more. These more shaded and moist habitats often have one or more species of ferns on their walls or growing on their humus-covered floor. One such hole in a dense coppice on Great Exuma was so deep that it was possible to harvest the banana bunches at common ground level from the banana plants growing in its bottom. The walls of this hole and the jumble of fallen boulders on its bottom were covered only with a dense cloak of *Asplenium dentatum* L. Oddly enough, in another nearby hole no *Asplenium* was to be found, but the walls were covered with *Tectaria lobata* (Poir.) Morton, *Anemia adiantifolia* (L.) Swartz, and *Thelypteris reptans* (J. F. Gmel.) Morton. In a pit on North Andros in a mixed pine-hardwood forest only the other two species of *Anemia* known from the Bahamas were found—*A. cicutaria* Kunze and *A. wrightii* Baker. In other pits in the same general area only *Thelypteris cordata* (Fée) Proctor, *T. augescens* (Link) Munz & I. M. Johnst., and *T. normalis* (C. Chr.) Moxley were found. The latter two species, along with *T. dentata* (Forssk.) E. St. John, also occur on ledges, moist banks, and on the edge of coppices.

Species that occur in "banana holes," as well as in dense coppices generally, are *Adiantum tenerum* Swartz and *Sphenomeris clavata* (L.) Maxon. The latter is also found occasionally on open banks and among rocks, especially where moisture is available.

Also to be found rather frequently on banks, on the edges of coppices, in disturbed soils, or in savannas, especially in and about pineyards, is *Pteris longifolia* L. Found less frequently in rocky-grassy soils is *P. vittata*.

Two Bahamian species favor the leaf "boots" of old arborescent palmettos as their habitat. These are the rather widespread *Polypodium aureum* L. and the less common *Vittaria lineata* (L.) J. E. Smith.

Several species have been found at only one or two stations in the Bahamas. I have, as yet, not been able to extend the area of distribution in the Islands for any of these species. They are *Adiantum melanoleucum* Willd. from Eleuthera and New Providence, *Pityrogramma calomelanos* (L.) Link and *Polypodium squamatum* L. from Andros, *Tectaria heracleifolia* (Willd.) Underw. from New Providence, and *Nephrolepis biserrata* (Swartz) Schott from East Caicos. I have found, however, several localities for the ruderal *Nephrolepis exaltata* (L.) Schott.

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