

SURVEY OF THE NON-FLOWERING PLANTS
OF THE BIG THICKET NATIONAL
PRESERVE, TEXAS
(PX 7029-6-0544, in part)

Report on the ferns

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A preliminary survey of the ferns and fern allies of the Big Thicket National Preserve has been completed. This survey has shown a great diversity in some Units and a "surprising" paucity in others. The Lance Rosier, Loblolly, Turkey Creek, Beech Creek, and Big Sandy Creek Units contain diverse fern floras. The soils, somewhat open canopies and low competition seem to favor the diverse fern floras. In the other Units, e.g., Neches River Units and Hickory Creek Savannah Units, competition or closed canopies seem to exclude most if not all the ferns of nearby Units. The twelve separate Big Thicket Preserve Units include many niches occupied by ferns, from the standing water of the Beaumont Unit occupied by Osmunda regalis to the sandy-soil of the open pine woods (e.g. in the Big Sandy Creek Unit) occupied by bracken fern (Pteridium aquilinum).

This enclosed list of ferns and fern allies of the Thicket indicate diversity in some units and lack of any ferns in others. "Not collected" indicates the unit was visited and the visitation sites offered no ferns to collect. Also, the accompanying list does not include the ubiquitous epiphytic (usually on hardwoods) resurrection fern Polypodium polypodioides (L.) Watt which is present in all units with the possible exception of the Hickory Creek Savannah Unit.

As to the use of fern habitats in visitor walks, it is suggested that the Lance Rosier Unit (approximately four miles south of Saratoga) is excellent for most of the messic ferns and the unusual vining fern, Lygodium japonicum. The lower areas of the Turkey Creek and Beech Creek Units offer excellent bog-like sites. These may be used to show carnivorous plants and the fern ally, Lycopodium adpressum. I should be happy to help establish such nature trails. (The Turkey Creek site also includes the japanese climbing fern (Lygodium japonicum)).

The scientific merit of the fern floras in the Thicket Units are as diverse as ones' interests. Ecological and developmental studies are evident at each site. It is hoped that the "Preserve" will remain as such and that long term experiments, especially ecological and development will be possible.

Beaumont Unit

Polystichum acrostichoides (Michx) Schott (infrequent)

Osmunda regalis L. (locally common)

Beech Creek Unit

Osmunda regalis L. (locally common)

Polystichum achrostichoides (L.) Watt. (infrequent)

Athyrium felix-femina (L.) Roth ex Mertens (locally common)

Lycopodium adpressum (Chapm.) Lloyd & Underw. (infrequent)

Lorinseria areolata (L.) Presl. (locally common)

Onoclea sensibilis L. (locally common)

Big Sandy Creek Unit

Athyrium Felix-femina (L.) Roth ex Mertens (locally common)

Lorinseria aerolata (L.) Presl. (locally common)

Osmunda cinnamomea (L.) (infrequent)

Osmunda regalis L. (locally common)

Polypodium polypodioides (L.) Watt (locally common)

Pteridium aquilinum (L.) Kuhn. (locally common)

Hickory Creek Savannah Unit

Not collected

Lance Rosier Unit

Asplenium platyneuron (L.) Oakes (infrequent)

Azolla caroliniana Willd. (locally common)

Dryopteris normalis C. Chr. (locally common)

Lorinseria aerolata (L.) Presl. (locally common)

Lygodium japonicum (Thumb. Sw. (locally common)

Onoclea sensibilis L. (locally common)

Osmunda cinnamomea L. (infrequent)

Osmunda regalis L. (locally common)

Lance Rosier Unit

Polypodium polypodioides (L.) Watt (locally common)

Polystichum acrostichoides (Michx.) Schott (infrequent)

Pteridium aquilinum (L.) Kuhn var. Pseudocaudatum (Clute) Heller
(locally common)

Woodwardia virginica (L.) J. Sm. (infrequent)

Little Pine Island Bayou Corridor Unit

Not collected

Loblolly

Dryopteris normalis C. Chr. (locally common)

Dryopteris setigera (Blume) Kuntze (locally common)

Lorinseria areolata (L.) Presl. (locally common)

Lygodium japonicum (Thumb.) Sw. (locally common)

Polypodium polypodioides (L.) Watt (locally common)

Polystichum acrostichoides (Michx.) Schott (infrequent)

Lower Neches River Corridor Unit

Dryopteris normalis C. Chr. (infrequent)

Menard Creek Corridor Unit

Not collected

Neches Bottom & Jack Gore Baygall Unit

Lorinseria areolata (L.) Presl. (locally common)

Lygodium japonicum (Thumb.) Sw. (locally common)

Osmunda regalis L. (locally common)

Polypodium polypodioides (L.) Watt (locally common)

Turkey Creek Unit

Athyrium felix-femina (L.) Roth ex Mertens (locally common)

Dryopteris normalis C. Chr. (locally common)

Lorinseria areolata (L.) Presl. (locally common)

Lycopodium adpressum (Chapm) Lloyd & Underw. (locally common)

Turkey Creek Unit (con'd)

Lygodium japonicum (Thumb.) Sw. (infrequent)

Onoclea sensibilis L. (locally common)

Osmunda cinnamomea L. (locally common)

Osmunda regalis L. (locally common)

* Polyopdium polypodioides (L.) Watt. (locally common)

Upper Neches River Corridor Unit

Not collected