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POACEAE (GRAMINEAE) ON THE ISLAND OF SAN SALVADOR, BAHAMAS

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ABSTRACT

A diverse assortment of grass species occur on the island of San Salvador, many of which have not been previously recognized and documented. Although the second edition of *Field Guide to the Vegetation of San Salvador* by Robert R. Smith (1993) is far more complete than was the first edition, there remain a number of species to be recorded for the island. The work reported herein gives a preliminary list of species of grasses collected on San Salvador from the author's first collecting trip in March 1990 through June 1997. During this time, collections were made in the months of February, March, April, June, August, and November. As of July 1997, 65 species of grasses had been collected and sixty of those had been successfully identified. Seventeen species were collected that were not reported by Smith (1993), and five species were collected that have never been reported to occur in the Bahamas. Eight species were reported by Smith (1993) that have *not* been found in this study.

This work is expected to continue for at least two more years with collections to be made in January, May, July, September, October, and December. Upon completion, an illustrated checklist and field guide to the grasses of San Salvador will be published.

INTRODUCTION

The goal of this work is to locate, collect, identify, and archive specimens of all species of grasses occurring in all habitat types on the island of San Salvador. To accomplish this, it is necessary to collect during every month of the year for several years.

The large amount of ecological disturbance on the island due to resort, residential, and highway construction has caused grasses to germinate and grow profusely in areas that were formerly covered with scrub. Influx of heavy construction equipment and road building materials must have introduced grasses that were not on the island prior to the road building and property line clearing activities in 1995. A lot of new residential and commercial construction plus the ever increasing numbers of tourists may also be a factor contributing to grass species introductions. Additionally,

the importation of ornamental plants in containers of soil has possibly introduced grasses to the island that did not previously occur there.

MATERIALS AND METHODS

The methodology used in this project involves making field collections over as much of the island as possible and as frequently as possible. The specimens are numbered in the field and annotations are recorded in a field notebook. The specimens are then arranged in newspaper folds, onto which collection number and locale are written, placed in a plant press, and dried in a plant dryer. Most specimens are identified after return to the United States. Uncertain plant identifications are verified primarily at S. M. Tracy Herbarium by matching with correctly identified and labeled specimens, through the use of monographs, or by contacting the expert of a particular genus. Technical floras used are listed in the Literature Cited section of this paper.

After completion of collection and identification phases, labels will be made and duplicate sets of specimens will be distributed to five herbaria including the College of the Bahamas (Bahamian Field Station), Missouri Botanical Garden, S. M. Tracy Herbarium, Fairchild Tropical Gardens, and the United States National Herbarium. Photographs are taken of grasses collected in representative habitat types, and 35 mm slides are taken of some of the species that are unusual or rare to San Salvador.

RESULTS

Following is the preliminary checklist of grass species that have been collected on San Salvador in the period from June 1990 through June 1997.

ANDROPOGON

- A. glomeratus* (Walt.) B. S. P.
- A. virginicus* L.

ARISTIDA

- A. purpurascens* (Spreng.) Schult.

A. swartziana Steud.

A. ternipes Cav.

A. vilfifolia Henr.

BOTHRIOCHLOA

B. pertusa (L.) A. Camus

BRACHIARIA

B. subquadripara (Trin.) Hitchc.

CENCHRUS

C. echinatus L.

C. incertus M. A. Curtis

CHLORIS

C. inflata Link.

CYMBOPOGON

C. sp. (unidentified due to lack of inflorescence)

CYNODON

C. dactylon (L.) Pers.

DACTYLOCTENIUM

D. aegyptium (L.) Beauv.

DICHANTHEIUM

D. annulatum (Poir.) C. E. Hubb.

DIGITARIA

D. bicornis (Lam.) Roem. & Schult.

D. ciliaris (Retz.) Koel.

D. sp. (unidentified)

DISTICHLIS

D. spicata (L.) Greene var. *spicata*

ELEUSINE

E. indica (L.) Gaertn.

ERAGROSTIS

E. ciliaris (L.) Beauv. ex R. & S.

E. elliotii Wats.

E. glomerata (Walt.) L. H. Dewey

E. purpurascens (Spreng.) Schult.

E. tenella (L.) Beauv. ex R. & S.

E. urbaniana Hitchc.

EUSTACHYS

E. petraea (Sw.) Desv.

LASIACIS

L. divaricata (L.) Hitchc. var. *divaricata*

LEPTOCHLOOPSIS

L. virgata (Poir.) Yates

PANICUM

P. bartowense Scribn. & Merr.

P. maximum Jacq.

PASPALIDIUM

P. geminatum (Forsk.) Stapf. var. *geminatum*

PASPALUM

P. arundinacium Poir.

P. blodgettii Chapm.

P. caespitosum Flugge

P. distichum L. (= *P. vaginatum* Sw.)

P. fimbriatum Kunth

P. laxum Lam.

P. molle Poir.

P. notatum Flugge

P. pleostachyum Doell.

P. urvillei Steud.

PHRAGMITES

P. australis (Cav.) Trin. ex Steud.

RHYNCHELYTRUM

R. repens (Willd.) C. E. Hubb.

SACCHARUM

S. officinarum L.

SETARIA

S. distantiflora (A. Rich.) Pilger

S. geniculata (Lam.) Beauv.

SORGHUM

S. bicolor (L.) Moench

SPARTINA

S. patens (Ait.) Muhl.

SPOROBOLUS

S. domingensis (Trin.) Kunth

S. jacquemontii Kunth

S. pulvinatus Sw.

S. pyramidatus (Lam.) Hitchc.

S. virginicus (L.) Kunth

STENOTAPHRUM

S. secundatum (Walt.) O. Ktze.

TRICHACHNE

T. insularis (L.) Nees [= *Digitaria insularis* (L.) Mez ex Ekman]

UNIOLA
U. paniculata L.

ZEA
Z. mays L.

DISCUSSION

As noted above, of the grass species that were included in Smith's *Field Guide to the Vegetation of San Salvador Island, The Bahamas*, 2nd Edition (1993), the following have not been collected in this study:

Chloris radiata (L.) Sw.
Cymbopogon flexuosus (Nees ex Steud.)
Digitaria horizontalis Willid.
Digitaria villosa (Walt.) Pers.
Eragrostis bahamensis Hitchc.
Panicum leonis Ekman ex Hitchc.
Panicum tenerum Beyr. [= *Seteria tenerum* (Beyr.) Rominger?]
Paspalum bakeri Hack.
Paspalum setaceum Michx. var. *ciliatifolium* (Michx.) Vasey

Species identified in the present study that were not included in Smith's *Field Guide to the Vegetation of San Salvador Island, The Bahamas* include:

Aristida purpurascens Poir. (New record for the Bahamas)

Aristida swartziana Steud. (New record for the Bahamas)

Aristida vilfifolia Henr.

Dichanthium annulatum C. E. Hubb. (New record for the Bahamas)

Digitaria bicornis (Lam.) Roem. & Schult.

Digitaria ciliaris (Retz.) Koel.

Eragrostis glomerata (Walt.) L. H. Dewey (New record for the Bahamas)

Eragrostis purpurascens (Spreng.) Schult. (New record for the Bahamas)

Leptochloopsis virgata (Poir.) Yates

Paspalidium geminatum (Forsk.) Stapf.

Paspalum notatum Flugge

Paspalum pleostachyum Doell. (Not new to Bahamas nor to San Salvador but not reported by Smith)

Paspalum urvillei Steud.

Rhynchelytrum repens (Willd.) C. E. Hubb.

Setaria distantiflora (A. Rich.) Pilger

Sporobolus jacquemontii Kunth (Not new to San Salvador but not reported by Smith)

Trichachne insularis (L.) Nees [= *Digitaria insularis* (L.) Mez ex Ekman]

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