

Not In NRBib

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Plants

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July 17, 1990

Mr. John Miller
Chief of Resources Management
Padre Island National Seashore
9405 South Padre Island Drive
Corpus Christi, Texas 78418

enter as
present in
park

Dear John:

BW
entered
7-18-00

Enclosed are two reprints of an Ocean & Shoreline Management paper based on our previous study of oil and gas industry impacts on PAIS resources. If you can use additional copies, please let me know.

Also enclosed are some preliminary results from our latest sampling of PAIS vegetation. It is too early to draw any conclusions from this initial analysis, but you might be interested in the comparison of backshore and primary dune vegetation from our transect in the protected beach area and the transect at the 25 mile marker.

While collecting data in June, we noticed indications of burning on the vegetated flats at both the northern transect (north of Bird Island Basin) and the transect at the 25 mile marker. We were wondering if you might have a record of burns in those locations and when they occurred.

Sincerely,

Glenn

Nearshore transects. Transect 1. North of Malaquite Beach; North Padre Island.
22 June 1990. NO VEHICULAR TRAFFIC.

Foreshore=30 meters; bare
Backshore=40 meters

	Freq.	Rel. freq.	% cover	Rel. cover	IV
<i>Ipomoea imperati</i> ✓	75.0	17.6	3.98	27.8	45.4
<i>Oenothera drummondii</i> ✓	50.0	11.8	4.00	28.0	39.8
<i>Sporobolus virginicus</i> ✓	75.0	17.6	0.58	4.0	21.6
<i>Amaranthus greggii</i> ✓	25.0	5.9	2.25	15.7	21.6
<i>Panicum amarum</i> ✓	50.0	11.8	1.23	8.6	20.4
<i>Sesuvium portulacastrum</i> ✓	50.0	11.8	0.58	4.0	15.8
<i>Uniola paniculata</i> ✓	25.0	5.9	1.00	7.0	12.9
<i>Hydrocotyle bonariensis</i> ✓	25.0	5.9	0.45	3.1	9.0
<i>Tidestromia lanuginosa</i> ✓	25.0	5.9	0.15	1.0	6.9
<i>Croton punctatus</i> ✓	25.0	5.9	0.10	0.7	6.6
10 species			14.32		

Windward primaries=30 meters

<i>Uniola paniculata</i> ✓	100.0	10.0	10.70	21.6	31.6
<i>Panicum amarum</i> ✓	66.7	6.7	7.77	15.7	22.4
<i>Ipomoea imperati</i> ✓	66.7	6.7	6.77	13.7	20.4
<i>Physalis viscosa</i> ✓	100.0	10.0	4.27	8.6	18.6
<i>Heterotheca subaxillaris</i> ✓	66.7	6.7	4.73	9.6	16.3
<i>Chamaecrista fasciculata</i> ✓	33.3	3.3	4.80	9.7	13.0
<i>Oenothera drummondii</i> ✓	33.3	3.3	4.27	8.6	11.9
<i>Paspalum setaceum</i> ✓	66.7	6.7	1.50	3.0	9.7
<i>Hydrocotyle bonariensis</i> ✓	66.7	6.7	1.27	2.6	9.3
<i>Schizachyrium scoparium</i> ✓	66.7	6.7	0.73	1.5	8.2
<i>Ratibida peduncularis</i> ✓	33.3	3.3	0.57	1.1	4.4
Unidentified grass	33.3	3.3	0.57	1.1	4.4
<i>Sporobolus virginicus</i> ✓	33.3	3.3	0.50	1.0	4.3
<i>Galactia canescens</i> ✓	33.3	3.3	0.23	0.5	3.8
<i>Paspalum monostachyum</i> ✓	33.3	3.3	0.27	0.5	3.8
<i>Eragrostis curtispedic.</i> ✓	33.3	3.3	0.17	0.3	3.6
<i>Croton capitatus</i> ✓	33.3	3.3	0.10	0.2	3.5
<i>Croton punctatus</i> ✓	33.3	3.3	0.10	0.2	3.5
<i>Senecio riddellii</i> ✓	33.3	3.3	0.07	0.1	3.4
<i>Euphorbia cordifolia</i> ✓	33.3	3.3	0.07	0.1	3.4
20 species			49.46		

Leeward primaries=20 meters

<i>Uniola paniculata</i> ✓	100.0	11.1	21.40	56.1	67.2
<i>Schizachyrium scoparium</i> ✓	50.0	5.6	6.15	16.1	21.7
<i>Heterotheca subaxillaris</i> ✓	100.0	11.1	3.50	9.2	20.3
<i>Senecio riddellii</i> ✓	100.0	11.1	2.60	6.8	17.9
<i>Chamaecrista fasciculata</i> ✓	100.0	11.1	1.30	3.4	14.5
<i>Hydrocotyle bonariensis</i> ✓	100.0	11.1	1.25	3.3	14.4
Unidentified grass	100.0	11.1	0.30	0.8	11.9
<i>Paspalum monostachyum</i> ✓	100.0	11.1	0.25	0.7	11.8
<i>Paspalum setaceum</i> ✓	50.0	5.6	0.75	2.0	7.6
<i>Physalis viscosa</i> ✓	50.0	5.6	0.60	1.6	7.2
<i>Eragrostis curtispedic.</i> ✓	50.0	5.6	0.05	0.1	5.7
11 species			38.15		

Probably *Leptoloma cognata*
var. *abundans*

Nearshore transects. Transect 2. 25 mile marker south of Malaquite Beach. 23 June 1990. North Padre Island.

Foreshore=absent

Backshore=50 meters

	Freq.	Rel. freq.	% cover	Rel. cover	IV
<i>Euphorbia cordifolia</i> ✓	20.0	50.0	0.06	50.0	100.0
<i>Uniola paniculata</i> ✓	20.0	50.0	0.06	50.0	100.0
2 species			0.12		

Windward primaries=50 meters

<i>Uniola paniculata</i> ✓	100.0	11.4	4.20	16.0	27.4
<i>Panicum amarum</i> ✓	80.0	9.1	3.10	11.8	20.9
<i>Ipomoea imperati</i> ✓	80.0	9.1	2.72	10.3	19.4
<i>Croton punctatus</i> ✓	60.0	6.8	3.06	11.6	18.4
<i>Indigofera miniata</i> ✓	60.0	6.8	2.50	9.5	16.3
<i>Ambrosia psilostachya</i> ✓	40.0	4.5	2.84	10.8	15.3
<i>Sporobolus virginicus</i> ✓	80.0	9.1	1.30	4.9	14.0
<i>Euphorbia cordifolia</i> ✓	60.0	6.8	1.78	6.8	13.6
<i>Schizachyrium scoparium</i> ✓	80.0	9.1	1.50	5.7	12.8
<i>Croton glandulosa</i> ✓	40.0	4.5	1.40	5.3	9.8
<i>Paspalum monostachyum</i> ✓	80.0	9.1	0.16	0.6	9.7
<i>Physalis viscosa</i> ✓	40.0	4.5	1.02	3.9	8.4
<i>Acalypha radians</i> ✓	40.0	4.5	0.66	2.5	7.0
<i>Spartina patens</i> ✓	20.0	2.3	0.04	0.2	2.5
<i>Paspalum setaceum</i> ✓	20.0	2.3	0.02	0.1	2.4
15 species			26.30		

Leeward primaries=30 meters (looks like a fire; any idea how long ago!).

<i>Croton glandulosa</i> ✓	100.0	11.5	8.47	33.9	45.4
<i>Schizachyrium scoparium</i> ✓	100.0	11.5	4.30	17.2	28.7
<i>Uniola paniculata</i> ✓	100.0	11.5	3.06	12.3	23.8
<i>Leptoloma cognatum</i> var. ✓					
<i>arenicola</i>	33.3	3.8	2.70	10.8	14.6
<i>Paspalum monostachyum</i> ✓	100.0	11.5	0.67	2.7	14.2
<i>Galactia canescens</i> ✓	66.7	7.7	1.43	5.7	13.4
<i>Commelina erecta</i> ✓	66.7	7.7	0.60	2.4	10.1
<i>Paspalum setaceum</i> ✓	66.7	7.7	0.33	1.3	9.0
<i>Sporobolus virginicus</i> ✓	33.3	3.8	1.20	4.8	8.6
<i>Acalypha radians</i> ✓	33.3	3.8	1.13	4.5	8.3
<i>Ambrosia psilostachya</i> ✓	33.3	3.8	0.57	2.3	6.1
<i>Asclepias oenotheroides</i> ✓	33.3	3.8	0.23	0.9	4.7
<i>Euphorbia cordifolia</i> ✓	33.3	3.8	0.20	0.8	4.6
<i>Cenchrus incertus</i> ✓	33.3	3.8	0.03	0.1	3.9
<i>Eragrostis curtispedic</i> ✓	33.3	3.8	0.03	0.1	3.9
15 species			24.95		