

New Jersey NATURAL LANDS TRUST

AGENDA NATURAL LANDS TRUST MEETING

March 27, 2020

Location: Via Teleconference
Please contact NatLands@dep.nj.gov for teleconference information
12:00 PM

- I. Statement of Open Public Meetings Act
- II. General Public Comment
- III. Financial Report
 - -Second, Third and Fourth Quarter 2019 Financial Reports, for decision
- IV. Minutes
 - -June 7, 2019 minutes, for decision

V. Unfinished Business

-Petty's Island, Pennsauken Township, Camden County, status update (no enclosure)

VI. New Business

- -Nominating Committee Recommendations for Chair, Vice Chair, Secretary/Treasurer Officers, for election, for decision (no enclosure)
- -Calendar Year 2020 Spending Authorization, for decision
- -Tennessee Gas Pipeline (TGP) Plant Fund-Calendar Year 2020 Annual Work Plan, for decision (no enclosure)
- -Petty's Island Project Area, Camden City, Camden County, for decision
- -Hirst Ponds Preserve and Bennett Bogs Preserve, Natural Area Register Listing, for information (no enclosure)
- Delaware Bay Migratory Shorebird Project Resolution Approving 2020 Budget, for affirmation
- -New Jersey Wetlands Mitigation Council Resolution Approving Expenditure, for affirmation
- -Draft 2019 Annual Report Text, for decision

VII. Adjourn

THE NEW JERSEY NATURAL LANDS TRUST STATEMENT OF FINANCIAL POSITION JUNE 30, 2019

(See Accountant's Review Report)

							With Donor Restrictions	strictions				
	Without Donor Restrictions General Fund	With Donor Restrictions General Fund	Hyponex	Petty's Island	Petty's Island Cultural	Shorebird	TGP Acquisition	TGP Animals	TGP Plants	Wetlands Acquisition	Wetlands	TOTAL
ASSETS												
Current Assets Cash and Cash Equivalents	\$ 2,046,883	сэ	\$ 62,289	\$ 1,350,263	\$ 1,173,713	\$ 7.100	902:58 \$ 0	\$ 1.355.217	\$ 1.175.283	\$ 16.214	3 973 845	A 11 796 513
Tenants Escrow	3,041	•										3,041
Due to Bennett Bogs Endowment	1	19,600	1	ı	,			•	1	•	1	19,600
Due to Hirst Pond Endowment	•	25,000	•	,	•		•	•	,	•	•	25,000
Due to Hainesville Wood Endowment	۳.	25,000	,	•	•		1	•	1	t	•	25,000
Due to Moorestown Acq Endowment	,	168,344	:	•	,		,	•	•	•	•	168,344
Due to Stevens Endowment	•	5,603	1	,	•			•	•	•	•	5,603
Due to tree Frog Pond Accrued Interest Receivable	. 1	2,451	1 1		, ,			•	i	•	•	2,451
Total Current Assets	2,049,924	245,998	62,289	1,350,263	1,173,713	7,100	635,706	1,355,217	1,175,283	16.214	3.973.845	12.045.552
Fixed Assets											-	
Land	•	38,079,629	2	•	•		,	•	,	•	,	38,079,629
Equipment	•	2,364	t	Ī	•		r	•	1	•	1	2,364
Venicles	•	15,544	•	•	•		,	•	•	•	•	15,544
Accumulated Depreciation	'	(17,908)	1	٠	•		*	•	'	1	•	(17,908)
Total Fixed Assets	•	38,079,629	•	•	•		•	•	Ī		•	38,079,629
Other Assets Investments-Long Term (FMV)	1	i	1	,	,	24 642	,	•	•	•	,	0.00
Due From Related Fund	3,343	•		81,000		1	,	•	,	•		84.343
Total Other Assets	3,343	1	'	81,000		21,642		,	1	-	i	105,985
TOTAL ASSETS	\$ 2,053,267	\$38,325,627	\$ 62,289	\$1,431,263	\$ 1,173,713	\$ 28,742	2 \$ 635,706	\$ 1,355,217	\$ 1,175,283	\$ 16,214	\$ 3,973,845	\$ 50,231,166
LIABILITIES & NET ASSETS Liabilities												
Due To Related Fund	\$ 81,000	69	, 69	3,343	У	69	69	es es	·	65	65	\$ 84343.00
Due to Endowment Account	245,998	•	,	•	•		•	•			,	•
Security Deposits Payable	2,792	•	•	,	•			•	•	•	•	2,792
Total Liabilities	329,790	1		3,343	j.		-		£	•	3	333,133
Net Assets												
Without Donor Restrictions	1,723,477	00000	1 00	, 60	1 6	i		' !	•	1	•	1,723,477
Unrealized Gain/Loss	• •	/70'075'95	687'70	0.28,7.24,1	51/3/17	29,712	635,706	1,355,217	1,175,283	16,214	3,973,845	48,175,526
Total Net Assets	1,723,477	38,325,627	62,289	1,427,920	1,173,713	28,742	2 635,706	1,355,217	1,175,283	16,214	3,973,845	49,898,033
TOTAL LIABILITIES & NET ASSETS	\$ 2,053,267	\$38,325,627	\$ 62,289	\$ 1,431,263	\$ 1,173,713	\$ 28,742	\$ 635,706	\$ 1,355,217	\$ 1,175,283	\$ 16,214	\$ 3,973,845	\$ 50,231,166

THE NEW JERSEY NATURAL LANDS TRUST STATEMENT OF ACTIVITIES AND NET ASSETS FOR THE SIX MONTH PERIOD ENDED JUNE 30, 2019

(See Accountant's Review Report)

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	Without Donor Restrictions General Fund		With Donor Restrictions General Fund		Hyponex	Petty's Island	Petty's Island Cultural		Shorebird	TGP Acquisition	TGP Animais	TGP Plants	Wetlands Acquisition	tíon	Weth	Wetlands Mitigation	TOTAL	Ŋ.
Revenue (Restricted)		I I												<u> </u>		Ī		
Contribution Income	€	863 \$	7,664	€	,	\$ 146,238	€9	₩	35,000	· •	u us	€5	æ	•	₩	4,027	€	193,792
Expense																		
Materials and Supplies	20 1	231			•	•	•		•	•	*)				•		231
Services	13,733	83			•	í	•		•	1	1	•						13,733
Maintenance	46,442	24			•	ŧ	,		•	•	•	•				,	•	46,442
Annual Report					•	ì	•			•	•	Ŧ		,		,		,
Capital		,		,	•	1	•		•	•	•	,		,				•
Subaccount Expenses			5,213	m	•	1	•			•	t	•		,				5,213
Other Authorized Expenditures		,		,	•	34,105	•		31,000	•	i	,		,	4	477,716	ιδ	542,821
Depreciation Expense		•			•	1	•		٠	1	t	•		,		•		
Total Expenses	60,406	90	5,213	<u>-</u>		34,105	•		31,000		1	'			4	477,716	Ð	608,440
Other Income																		
Rent Income	13,700	8			•	•	•			,	i	•				,		13,700
Interest/Dividend Income	22,501	2			715	14,706	13,470		353	7,296	15,553	13,488		186		48,452	Ť-	136,720
Miscellaneous Income	3,780	8		,	1	j	1		•	•	1	•				•		3,780
Gain or Loss on Sale		ا ا •		,	,	,	-		•		•	•		,		•		,
Total Other Income	39,981	ᄝ		 ,	715	14,706	13,470		353	7,296	15,553	13,488		186		48,452	7	154,200
Excess Revenues Over Expenses/																		
Excess (Expenses) Over Revenues	\$ (19,562)	92) \$	2,451	\$	715	\$ 126,839	\$ 13,470	69	4,353	\$ 7,296	\$ 15,553	\$ 13,488	ω	186	s 4	(425,237)	\$ (20	(260,448)
Net Asset Balance Dec 31, 2018	\$ 1,743,039	39 8	38,323,176	()	61,574	\$ 1,301,081	\$ 1,160,243	6/3	23,890	\$ 628,410	\$ 1,339,664	\$ 1,161,795	\$ 16,	16,028	& £,43	4,399,082	\$ 50,18	50,157,982
Unrealized Loss/Gain									, 90		()	1 !				t I		, 00
Inter Fund Transfer					•	•	•		} '	•				. ,		. 1) '
Net Asset Balance June 30, 2019	\$ 1,723,477	8	38,325,627	g €9 	62,289	\$ 1,427,920	\$ 1,173,713	ß	28,742	\$ 635,706	\$ 1,355,217	\$ 1,175,283	\$ 16,	16,214	3,9	3,973,845	\$ 49,89	49,898,033
					П													

THE NEW JERSEY NATURAL LANDS TRUST STATEMENT OF FINANCIAL POSITION SEPTEMBER 30, 2019

(See Accountant's Review Report)

							With Donor Restrictions	trictions				
	Without Donor Restrictions General Fund	With Donor Restrictions General Fund	Hyponex	Petty's Island	Petty's Island Cultural	Shorebird	TGP Acquisition	TGP Animals	TGP Plants	Wetlands Acquisition	Wetlands Mitlgation	TOTAL
ASSETS Current Assets Casth and Cash Entitivalents	4.2 056 737	4	20 20 20 20 20 20 20 20 20 20 20 20 20 2	0.4.0	6 0 0 10 10					,		
Tenants Escrow	3,041	, ,		044,1440	650,001,1 4	ecr,, &	DEL'850 &	3,552,516 4	\$ 1,181,613	\$ 16,301	\$ 3,889,744	\$ 11,743,285
Due to Bennett Bogs Endowment		19,600	\$	•	r	i	,	*	•			19,690
Due to Mirst Pond Endowment	•	25,000	•	•	•	•	ŀ	1.		•	,	25,000
Due to Hainesville Wood Endowment	ť	25,000	•	•	•	•	i	•	•		•	25,000
Due to Woorestown Acq Endowment Due to Stevens Endowment	-	168,344	•	•	1	i	*	·			•	168,344
Due to Tree Frog Pond	1	1,819		. ,	, ,			1	. ,	1 1		5,603 1,819
Accrued Interest Receivable		1	2			,	7		,	'	•	0
lotal Current Assets	2,059,778	245,366	62,624	1,347,446	1,180,035	7,139	639, 130	1,362,516	1181,613	16,301	3,889,744	11,991,692
Fixed Assets		00000										
Cand	•	38,078,629	ı	ı	•	•	i	1			•	38,079,629
Vehicles	, ,	4,384	1 1		•	•	F	•	•	•	•	2,364
Accumulated Depreciation	•	(17,908)	,			٠.	, ,	2 1		1 1		15,544
Total Fixed Assets	-	38,079,629	-			*	1	,	•	'	١	38,079,629
Other Assets Investments-Long Term (FMV)	•	•	•	•		21,941	ı	•	1		,	21,941
Due From Related Fund	3,343	'	1	81,000	ŗ	1	•	•	\$	1	,	84,343
lotal Other Assets	3,343			81,000		21,941			-	t	•	106,284
TOTAL ASSETS	\$2,063,121	\$38,324,995	\$ 62,624	\$1,428,446	\$ 1,180,035	\$ 29,080	\$ 639,130	\$ 1,362,516	\$ 1,181,613	\$ 16,301	\$ 3,889,744	\$ 50,177,605
LIABILITIES & NET ASSETS Liabilities								,				r
Due To Related Fund	\$ 81,000	·	, ()	\$ 3,343	, 69	· •	· 69	і (G	₽	! 69	\$ 84,343.00
Due to Endowment Account Security Deposits Payable	245,366 2,792	1 1				. ,	1 1	,)				245,366
Total Liabilities	329,158			3,343	-	1	1				1	332,501
Net Assets Mithout Donor Bestrictions	4 700 060									í	٠),),),
With Donor Restrictions	200,000	38,324,995	62,624	1,425,103	1,180,035	29,407	639,130	1,362,516	1,181,613	16,301	3,889,744	48,111,468
Total Net Assets	1,733,963	38,324,995	62,624	1,425,103	1,180,035	(327)	639,130	1,362,516	1,181,613	16,301	3,889,744	(327) 49,845,104
TOTAL LIABILITIES & NET ASSETS	\$2,063,121	\$38,324,995	\$ 62,624	\$ 1,428,446	\$ 1,180,035	\$ 29,080	\$ 639,130	\$ 1,362,516	\$ 1,181,613	\$ 16,301	\$ 3,889,744	\$ 50,177,605

THE NEW JERSEY NATURAL LANDS TRUST STATEMENT OF ACTIVITIES AND NET ASSETS FOR THE NINE MONTH PERIOD ENDED SEPTEMBER 30, 2019

(See Accountant's Review Report)
With Donor Restrictions

	Without Donor Restrictions General Fund	Without Donor Restrictions General Fund	With Restu Gener	With Donor Restrictions General Fund	H	Hyponex	Petty's Island	Petty's Island Cultural		Shorebird	TGP Acquisition	TGP Animals	TGP Plants	Wetlands Acquisition	inds sition	Wetl	Wetlands Mitigation	E	TOTAL
Revenue (Restricted)								l							İ			2	2
Contribution Income	ю	1,788	€9	7,664	ь	•	\$ 154,338	69	44	35,000	.	€9	, 69	44		↔	34,027	69	232,817
Expense																			
Materials and Supplies		639		t		•	,	•		1	٠	•	,				s		636
Services		19,176		١		•	•	į			1	,	,				*		19,176
Maintenance	•	48,935		٠			•	•		•	•	,	•		•		,		48,935
Annual Report		•		•		,	٠	\$		٠	1	•	1		•		٠		
Capital		٠		*		,	1	1		•	٠	•	ŧ		,				
Subaccount Expenses		•		5,845		٠	•	•		,	•	•	1		,		ŧ		5,845
Other Authorized Expenditures		•		٠		•	52,310	•		31,000	•	1	1			Ψ	613,170	Ψ	696.480
Depreciation Expense		•		•		٠	•	•		•	•	1	1						
Total Expenses		68,750		5,845		ļ ·	52,310			31,000	,	, 			-	ω	613,170	7	771,075
Other Income																			
Rent Income	••	20,150		1		٠	•	•		•	٠	1	•		,		,		20,150
Interest/Dividend income	.,	33,060				1,050	21,994	19,792		547	10,720	22,852	19,818		273		69,805	*	199,911
Miscellaneous Income		4.676		,			٠	•		•	•		•						4,676
Gain or Loss on Sale		•		,		•	•	•		•	\$	•	1						
Total Other Income		57,886		•		1,050	21,994	19,792		547	10,720	22,852	19,818		273		69,805	2	224,737
Excess Revenues Over Expenses/																			
Excess (Expenses) Over Revenues	49	(9,076)	es S	1,819	69	1,050	\$ 124,022	\$ 19,792	49	4,547	\$ 10,720	\$ 22,852	\$ 19,818	es	273	\$	(908,338)	8 (3)	(313,521)
Net Asset Balance Dec 31, 2018	\$ 1,743,039	13,039	38	38,323,176	G.	61,574	\$ 1,301,081	\$ 1,160,243	ક્ક	23,890	\$ 628,410	\$ 1,339,664	\$ 1,161,795	\$	16,028	8	4,399,082	\$ 50,1	50,157,982
Land Acquisition		ŧ		,		•	•	•		•	•	•	•				,		•
Unrealized Loss/Gain		•		•			•	1		643	F	•	•						643
Inter Fund Transfer		ٔ ا		'		ا'	*	'	ļ		,	-	4		,		•		•
Net Asset Balance Sept 30, 2019	\$ 1,733,963	3,963	\$ 38.	38,324,995	€9	62,624	\$ 1,425,103	\$ 1,180,035	s	29,080	\$ 639,130	\$ 1,362,516	\$ 1,181,613	\$ 16	16,301	\$ 3,8	3,889,744	\$ 49,8	49,845,104

THE NEW JERSEY NATURAL LANDS TRUST STATEMENT OF FINANCIAL POSITION DECEMBER 31, 2019

(See Accountant's Review Report)

4,003,558 4,003,558 4,003,558 1,003,558 4,003,558 Wetlands Mitigation 64 (A) 16,371 16,371 16 371 16,371 16,371 Wetlands Acquisition Ø \$ 1.184,272 \$ 1.184.272 1,184,272 1,184,272 \$ 1,184,272 TGP Plants 1,368,352 1,368,352 1,368,352 1,368,352 1,368,352 TGP Animals 1,368,352 With Donor Restrictions 60 641,867 641,867 641.867 641,867 TGP Acquisition 641,867 641,867 63 29,646 (472) 29,174 29,174 7,169 22,005 29.174 22,005 7,169 Shorebird S .185,089 \$ 1,185,089 Petty's Island Cultural 1,185,089 \$ 1,185,089 \$ 1,185,089 1,185,089 \$1,425,135 3,343 81,000 \$ 1,425,135 1,421,792 1,421,792 Petty's Island 1,344,135 \$ 1,344,135 62,893 62,893 62,893 62,893 62,893 Hyponex œ \$36,817,920 Restrictions General Fund 36,020,829 2,364 15,544 (17,908) 36,020,829 11,325 25,000 25,000 168,344 560,000 5,603 1,819 \$36,817,920 36,817,920 797.091 With Donor 4) \$ 2,625,768 3,343 641,000 237,091 2,792 880,883 \$ 2.625,768 1,744,885 Restrictions General 1,744,885 3,042 \$2,619,383 Fund Due to Bernett Bogs Endowment
Due to Hirst Pond Endowment
Due to Hirst Pond Endowment
Due to Horsville Wood Endowment
Due to Statewide Capital Projects
Due to Statewide Capital Projects
Due to Stevens Endowment TOTAL LIABILITIES & NET ASSETS Investments-Long Term (FMV) Due From Related Fund Liabilities

Due To Related Fund

Due to Endowment Account Accrued Interest Receivable Without Donor Restrictions Cash and Cash Equivalents Security Deposits Payable Accumulated Depreciation LIABILITIES & NET ASSETS With Donor Restrictions Unrealized Gain/Loss

Due to Tree Frog Pond **Fotal Current Assets**

Tenants Escrow

Current Assets

Total Other Assets

TOTAL ASSETS

Total Net Assets

Total Liabilities

Total Fixed Assets

Other Assets

Equipment

Vehicles

Fixed Assets

36,020,829 2,364 15,544 (17,908) 36,020,829

3,042 11,325 25,000 25,000 168,344 560,000 5,603 1,819

\$ 12,433,089

TOTAL

22,005 84,343 (06,348

\$ 49.360,399

\$ 644,343.00 237,091

1,744,885

\$ 49,360,399

48,476,173

THE NEW JERSEY NATURAL LANDS TRUST STATEMENT OF ACTIVITIES AND NET ASSETS FOR THE TWELVE MONTH PERIOD ENDED DECEMBER 31, 2019

(See Accountant's Review Report)
With Donor Restrictions

	Withoul Donor Restrictions General Fund	With Danor Restrictions General Fund	Hyponex	Petty's island	Petty's Island Cultural	Shorebird	TGP Acquisition	TGP Animals	TGP Plants	Wetlands Acquisítion	Wetlands Mitigation	TOTAL
Revenue (Restricted)												
Contribution Income	\$ 4.188	\$ 7,664	v)	\$ 154,338	· •>	\$ 35,000	, vs	· ·	s s	· ·	\$ 131,061	\$ 332,251
Expense									,		٠	1,557
Materials and Supplies	1,557	•	•	•	•	•	•			•	,	20,559
Services	20,559	•	•	1	•		•	•	,	•	•	53,077
Maintenance	53,077	•	•	,	•	•	•	•	•	•	•	i
Annual Report	•	1	1	,	•	•	•	, ,	, ,	,	•	1
Capital	•	F	1	•	•	•	•	•	. ,	•	,	14,120
Subaccount Expenses	•	14,120	•	•	,	' '	•	•	2 400	•	613,170	707,927
Other Authorized Expenditures	•	•	1	61,357	•	31,000	•	•	704.1	,	•	•
Depreciation Expense		•	`		,	'	'		00.0		613 170	797.240
Total Expenses	75,193	14,120	٠	61,357	,	31,000	•	•	7,400	•	5	
Other income												25 800
Rent Income	25,800	•	•	1	•		•	•	' !	' <u>{</u>	48 30	251 006
Interest/Dividend Income	42,375	•	1,319	27,730	24,846	786	13,457	28,688	24,877	ξ,	opo'00	4,676
Miscellaneous income	4,676	1 6	•	,		٠,	, ,		ı	•	-	(1,498,800)
NonRecurring Land Sale	1	(1,498,800)		•			17. 47	000	778 70	575	86.585	(1,217,318)
Total Other income	72,851	(1,498,800)	1,319	27,730	24,846	786	13,45/	70,000	Ž,	}		
Excess Revenues Over Expenses/ Excess (Expenses) Over Revenues	\$ 1,846	\$ (1,505,256)	\$ 1,319	\$ 120,711	\$ 24,846	\$ 4,786	\$ 13,457	\$ 28,588	\$ 22.477	\$ 343	\$ (395,524)	\$ (1,682,307)
Net Accet Balance Dec 31, 2018	\$ 1,743,039	\$ 38,323,176	\$ 61,574	\$ 1,301,081	\$ 1,160,243	\$ 23,890	\$ 628,410	\$ 1,339,664	\$ 1,161,795	\$ 16,028	\$ 4,399,082	\$ 50,157,982
Land Acquisition	•	•	•	•	•	, 90%	• •					498
Unrealized Loss/Gain	•	•	•	s	•	2	•	•	,	1	٠	
Inter Fund Transfer	, 000	١	, 69 69	£ 1 421 792	\$ 1185089	\$ 29.174	\$ 641,867	\$ 1,368,352	\$ 1,184,272	\$ 16,371	\$ 4,003,558	\$ 48,476,173
Net Asset Balance Dec 31, 2019	\$ 1,744,833	3 30,01,1320	CEC.20	t i			11	"				

The accompanying notes are an integral part of the financial statements.

MINUTES OF THE NATURAL LANDS TRUST MEETING June 7, 2019 12:00 PM

Petty's Island, Pennsauken, New Jersey

Chairman Catania called the meeting to order at 12:15 PM. A quorum of trustees was present. At least one of the trustees was a state governmental representative.

The Open Public Meetings Act notice was provided as follows: Notice of the date, time, location and agenda, to the extent known, was forwarded to three newspapers of general circulation, and provided to the Secretary of State in accordance with the Open Public Meetings Act. In addition, notice was provided on the Trust's website in compliance with the Act requiring State, regional, and local authorities, boards, and commissions to establish a website providing specific information to facilitate transparency in government.

In attendance were:
Michael Catania, Chairperson
Theresa Lettman, Trustee/SecretaryTreasurer
Judeth Yeany, DEP Trustee
Larry Torok, DEP Trustee
John Cecil, Trustee
Emile DeVito, Trustee

Matthew Rossi, Trustee representative for the State Treasurer Marlen Dooley, alternate for Ray Bukowski, Trustee representative for the DEP Commissioner Robert J. Cartica, Executive Director Martin Rapp, Trust Staff Cari Wild, Trust Staff

Absent were:

James Hall, Vice Chairperson Senator Bob Smith, State House Commission representative, Trustee Steve Eisenhauer, Trustee

General Public Comment: As the New Jersey Natural Lands Trust celebrates the 50th Anniversary of its authorization on January 23, 1969, many people joined us at this meeting and spoke about the Trust's accomplishments over the past 50 years and its significance as the only state agency focused on biodiversity. In addition to Chairman Catania, NJDEP Commissioner Catherine McCabe, Division of Parks & Forestry Director Olivia Glenn, former Trust Secretary/Treasurer David Moore and CITGO's Jack McCrossin were featured speakers at this event. As one of the founders of the Trust, Mr. Moore told the story behind the creation of the Trust for the group.

Financial Report: Mr. Cartica outlined the Financial Statements for the quarter ending March 31, 2019. Mr. DeVito motioned to approve the Financial Statements. Mr. Torok seconded the motion and the Financial Statements were unanimously approved by a vote of 8 to 0.

The **March 22, 2019 minutes** were reviewed. Mr. Cecil motioned to approve the minutes. Mr. Rossi seconded the motion and the minutes were unanimously approved by a vote of 8 to 0.

New Business:

Mr. Catania presented the **Resolutions thanking and recognizing Tom Gilmore and James Hall** for their many years of service to the Trust for approval. Ms. Yeany motioned for the resolutions to be approved. Mr. Rossi seconded the motion, and the resolutions were approved by a unanimous vote of 8 to 0.

The 2019 Board meeting dates for the remainder of 2019 are:

September 27th, and December 13th, 2019

Ms. Lettman motioned for the meeting to be adjourned. Mr. Cecil seconded the motion, and the meeting was adjourned at 1:11 PM by a unanimous vote of 8 to 0.

Respectfully submitted,

Theresa Lettman Secretary/Treasurer



NEW JERSEY NATURAL LANDS TRUST SPENDING AUTHORIZATION FOR CALENDAR YEAR 2020

2019 Authorization 2019 Expenditure 2020 Authorization

MATERIALS AND SUPPLIES \$2,000

\$1,557

\$2,000

General Printing, Office Supplies and Mail Services - \$2,000

Includes routine office supplies, photocopying, reference materials and publications, maps and reproduction of maps, creating signage, and similar expenses. Production and printing of the Annual Report is not included under this category. If needed, this item will fund additional functions for outreach and volunteers for management and acquisition.

SERVICES \$23,700 \$20,559 \$23,700

Travel - \$700

Includes funds for refreshments for Board meetings, travel and parking reimbursement for meetings of Board of Trustees, and staff reimbursement for occasional use of personal vehicles.

Information Processing - \$1,000

Includes computer repairs and purchase of software.

DAG Expenses – \$7,000

Includes charges assessed to the Trust for professional services provided by staff of the Attorney General's office.

Other Professional Services - \$15,000

Includes cost of professional accounting services, maintenance of the Trust's website, title searches and filing fees for land donations, legal advertisement of Board of Trustees meeting dates, membership fees and bank service charges. Also includes routine professional service contracts for surveys and preparation of deeds. Minimal back taxes are included as part of this line; however, substantial tax payments will be included in each offering brought to the Board.

2019 Authorization 2019 Expenditure 2020 Authorization

MAINTENANCE AND FIXED CHARGES

\$91,000

\$83,309

\$71,000

General Maintenance of Buildings, Grounds, Equipment and Vehicle - \$30,000

Includes funds for maintenance of rental units (including furnace or roof replacement, road regrading, power restoration, and other emergency measures), gates and access, safety/stabilization needs, tree trimming and removal, dumpster rental, encroachment surveys, etc., as needed. Major maintenance and capital improvement projects not included within this authorization will be submitted individually, together with a recommended funding source, to the Board for consideration. Known 2020 maintenance projects to include the following:

Hamilton Preserve cleanup and installation of gates - \$10,000

Conservation/Preserve Management Projects - \$41,000

The following planned projects are relevant to the Trust's mission of preservation of biodiversity. The costs for each project are gross estimates and quotes have not yet been sought.

Reinhardt Preserve Biodiversity Inventory - \$21,000 Mackenzie's Bob Preserve butterfly, dragonfly, and rare wetland plant survey - \$4,000 High Mountain Preserve glade rare plant survey and habitat management - \$3,000 Lincoln Grove Preserve skid steer hydraulic mower rental - \$3,000 Other directed preserve surveys - \$10,000

ANNUAL REPORT

\$500

\$0

\$500

2018 Annual Report - \$500

The requested authorization includes the cost of graphic layout and development of the annual report for posting on the Trust's website.

CAPITAL

\$2,500

\$0

\$2,500

Miscellaneous Equipment Purchase and Replacement - \$2,500

This budget allows for miscellaneous small equipment and supply purchases used for land management and office function.

TOTAL 2020 SPENDING AUTHORIZATION

\$119,700

\$105,425

\$99,700



PETTY'S ISLAND PROJECT AREA Camden City, Camden County

March 27, 2020

Description of Project Area

The approximately 100-acre Petty's Island Project Area is in Camden City, Camden County includes the 25-acre Cramer Hill Nature Preserve on which the Trust already holds an easement. The Trust also holds an easement on Petty's Island and the Board has already approved the transfer of fee interest in the island to the Trust once the island has been remediated. The purpose of this Project Area is to facilitate Green Acres' acquisitions of waterfront properties along the Delaware River Back Channel across from Petty's Island.

The Project Area boundary has been drawn to include all of the waterfront properties from 36th Street southwest to 25th Street.

Ecological Description

Along the shoreline of the Delaware River Back Channel are freshwater tidal wetlands/marshes. Tidal wetlands are complex, highly productive coastal ecosystems influenced by the tides, which provide foraging habitat for a variety of birds and, within the Project Area, provide habitat for rare plant species such as the estuary burr-marigold. The entire back channel is ranked 5 under the Landscape Project as habitat for rare animal species such as bald eagle, and shortnose and Atlantic sturgeon. This area is also habitat for freshwater mussel, the most imperiled of all species in North America. Nearly three-quarters of the 300 North American mussel species are in decline, and many are either extinct or headed toward extinction. Recently, at least six species of mussels were found living in dense communities south of Petty's Island. These beds included several rare species, two of which were previously believed to no longer exist in Pennsylvania and New Jersey.

These tidal wetlands along the back channel can also provide storm and flood protection to Camden and Pennsauken, which could be especially significant here as all of the properties within the Project Area are within the FEMA Flood Hazard Area.

Management Issues and Concerns

The Project Area is in the area of the Trust's Petty's Island Preserve, which presently consists of easements on Petty's Island and the Cramer Hill Nature Preserve, the latter of which is owned by the Camden County Municipal Utilities Authority and managed by the New Jersey Conservation Foundation (NJCF). As additional properties are acquired in this area, the Trust will work with NJCF and other area partners on the most efficient and effective management. In addition, Camden County is in the process of planning for trail connections between 36th Street at the Petty's Island bridge, the 36th Street River Line Station, and the future Cramer Hill Waterfront Park.

Acquisition Criteria

Properties within this Project Area meet the acquisition criteria for Endangered Species Habitat since they include habitat for a state or federally listed plant or animal species or suitable buffers to protect such species.

Staff Recommendations

Staff recommends the approval of this Project Area to facilitate Green Acres' acquisition of properties in the area. As required by the Trust's Guidelines for Land Acquisition, lands within the Project Area that would present management concerns, such as structures, improvements or contamination or that would require the expenditure of Trust funds, would be brought to the Board for specific approval before acquisition.



New Jersey Natural Lands Trust Pettys Island Project Area City of Camden, Camden County, New Jersey

City of Camden, Camden County, New Jersey

100+ Acres
0 0.25 0.5

Miles



RESOLUTION OF THE NEW JERSEY NATURAL LANDS TRUST APPROVING DELAWARE BAY MIGRATORY SHOREBIRD PROJECT 2020 BUDGET REQUEST BY ENDANGERED AND NONGAME SPECIES PROGRAM AND CONSERVE WILDLIFE FOUNDATION IN THE AMOUNT OF \$36,000

WHEREAS, the New Jersey Natural Lands Trust (Trust) manages the Delaware Bay Migratory Shorebird Fund (Shorebird Fund) and annually approves budget requests by the Conserve Wildlife Foundation (CWF) and the Department of Environmental Protection Endangered and Nongame Species Program (ENSP) for funding from the Shorebird Fund; and

WHEREAS, the attached CWF and ENSP's proposed joint 2020 shorebird budget totals \$36,000 which includes \$31,000 for CWF and \$5,000 for ENSP; and

WHEREAS, in 2019, \$41,000 was budgeted and \$31,000 has been expended to date; and

WHEREAS, as of January 25, 2020, the Trust's Shorebird Fund balance was \$60,283.92; and

WHEREAS, CWF and ENSP anticipate reimbursement of some of the 2020 expenditures through a National Fish and Wildlife Foundation (NFWF) grant, which will be deposited into the Shorebird Fund; and

WHEREAS, CWF was recently presented with invoices for rental of property and/or equipment that require payment before the next regularly scheduled Board meeting on March 27, 2020; and

WHEREAS, the Trust's bylaws provide that in the event a decision by the Board is required and a special meeting cannot be held due to time constraints or lack of a quorum, the Executive Director may poll the members of the Board to determine their preference on an issue. In such a circumstance, the Executive Director shall supply to each Board member, in writing, a draft resolution and information sufficient for Board consideration. With the concurrence of at least seven (7) members of the Board, the Executive Director may act in accordance with the resolution. The same resolution will then be presented to the Board, for affirmation, at its next regularly scheduled meeting.

WHEREAS, as with prior budgets, the 2020 shorebird budget should be approved with a rider authorizing a reallocation of expenses between categories subject to a limitation of the total budgeted amount. The Board should also authorize a \$31,000 upfront payment to CWF to fund Delaware shorebird work to be done in May and June 2020 with receipts for such work to be provided later; and

NOW THEREFORE BE IT RESOLVED that the Trust approves the 2020 budget with the reallocation rider and upfront \$31,000 payment.

RESOLUTION OF THE NEW JERSEY NATURAL LANDS TRUST APPROVING DISBURSEMENT IN THE AMOUNT OF \$1,138,054.55 FROM THE WETLANDS MITIGATION FUND TO BLOOMFIELD TOWNSHIP

WHEREAS, the New Jersey Wetlands Mitigation Council (hereinafter "Council"), and the New Jersey Natural Lands Trust (hereinafter "Trust"), entered into a Memorandum of Understanding (hereinafter "MOU") dated April 28, 2004 to establish a framework for the transfer and management of funds and real estate donated to the Council; and

WHEREAS, the MOU does not create any substantive standards under which mitigation proposals will be reviewed or impose any legal obligations on the public. It is intended to avoid unnecessary duplication of effort between the Council and Trust; and

WHEREAS, the Council was created by Law of 1987, c.156 (N.J.S.A. 13:9B-14) as a public body in but not of the Department of Environmental Protection, and the statutory responsibilities of the Council include the governance of the Wetlands Mitigation Bank and the disbursement of funds from the Bank to finance mitigation projects, the purchase of land to provide areas to restore or enhance degraded wetlands, and the purchase of land to preserve wetlands and transition areas determined to be of critical importance in protecting wetlands; and

WHEREAS, based on its statutory authority to receive moneys and invest same in an interest-bearing account, under the MOU the Trust has agreed to manage moneys that are collected by the Council and to invest such moneys in an account known as the Wetlands Mitigation Fund; and

WHEREAS, under the MOU the Council retained authority to determine what moneys it collects should be transferred into the Wetlands Mitigation Fund and to determine how those moneys are spent. The MOU specified that the Council shall continue to exercise its discretion over the Wetlands Mitigation Fund as to the selection of appropriate real estate acquisitions, restoration projects, mitigation projects and research projects that meet the statutory goals of the Freshwater Wetlands Protection Act except with respect to the specific transfer of funds to the Trust for the purchase of land as provided in paragraph 3 of the MOU. The Executive Director of the Trust shall disburse the moneys for projects approved by a resolution of the Council; provided, however, that disbursements exceeding \$250,000 shall require the authorization of the Trust's Board, which shall act on any request for such authorization within ten working days after the Executive Director's receipt of a request for disbursement from staff to the Council; and

WHEREAS, projects that are approved by a resolution of the Council are hereby deemed to be in furtherance of the purposes of the Trust on the basis that they are required by law to be in accordance with the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq., specifically N.J.S.A. 13:9B-15) as well as to preserve natural diversity; and

WHEREAS, the Council approved Resolution 2015-04 on December 8, 2015 approving grant funding to Bloomfield Township in the amount of \$1,755,746.00 for the Third River

Wetland Enhancement Project (Project), Bloomfield Township. To date, the Council has authorized four payments totaling \$349,370.23; and

WHEREAS, on January 21, 2020, the Council submitted to the Trust a request for payment to Bloomfield Township in the amount of \$1,138,054.55; and

NOW THEREFORE BE IT RESOLVED that the Trust finds the Third River Wetland Enhancement Project to be consistent with the intent of the MOU between the Council and the Trust and authorizes the Executive Director or the Secretary-Treasurer to make a disbursement to Bloomfield Township in the amount of \$1,138,054.55 subject to the conditions outlined in the attached resolution of the Council as attested to by Ms. Claudia Rocea, Acting Chairperson, on December 8, 2015.



New Jersey Natural Lands Trust 2019 Annual Report

Statement of Purpose

The New Jersey Natural Lands Trust was created in 1968 by legislation which became effective on January 23, 1969, **making 2019 the 50**th **Anniversary of the Trust**. The intent of this legislation was to create an independent agency with the mission to preserve land in its natural state for enjoyment by the public and to protect natural diversity through the acquisition of open space. The Trust preserves land primarily by donations of open space through acquisition of title in fee simple or of conservation easements, and manages its properties to conserve endangered species habitat, rare natural features, and significant ecosystems. The Trust invites passive use by the public for recreational or educational purposes wherever such use will not adversely affect ecological communities and biological diversity.

The Trust also recognizes that ownership and management alone are not enough to achieve its mission. Public education is an integral function of protecting natural diversity. The Trust distributes information designed to convey a conservation ethic for the protection of open space and its natural values.

New Jersey Natural Lands Trust contact information:

New Jersey Natural Lands Trust Mail Code 501-04 P.O. Box 420 Trenton, NJ 08625-0420 Phone (609) 984-1339 Fax (609) 984-1427

Email: NatLands@dep.nj.gov

www.ninlt.org

Index of Preserves Referenced Within the 2019 Annual Report

Atlantic County

Bearshead Preserve ~ Mankiller Preserve ~

Burlington County

Bear Swamp at Red Lion Preserve ~

Camden County

Petty's Island Preserve ~

Hunterdon County

Gravel Hill Preserve ~ Sweet Hollow Preserve ~ Thomas F. Breden Preserve at Milford Bluffs ~

Sussex County

Mackenzie's Bog Preserve ~ Montague Woods Preserve ~ Quarryville Brook Preserve ~ Reinhardt Preserve ~

Warren County

Bear Creek Preserve ~ Buttermilk Bridge Preserve ~

In 2019 ... the New Jersey Natural Lands Trust brought approximately 600 new acres under Trust stewardship adding to its system of more than 120 preserves throughout the state. Of the new acquisitions, three were donations to the Trust.

Two of this year's acquisitions created two new Trust preserves: Mackenzie's Bog Preserve and Montague Woods Preserve. The remaining acquisitions built upon the existing Bear Creek, Bearshead, Bear Swamp at Red Lion, Buttermilk Bridge, Gravel Hill, Mankiller, Quarryville Brook, Reinhardt, Sweet Hollow, and Thomas F. Breden at Milford Bluffs preserves.

Trust Wins Best New Jersey Website Award

At a ceremony on October 25th at Thomas Edison State University in Trenton, the Documents Association of New Jersey (DANJ) awarded the Trust for having the best government website in New Jersey for 2019. DANJ started giving this award in 1998 with the aim of promoting government information.

The Trust created and continuously updates its website to future the goal of providing useful and interesting information to the public. According to DANJ, the final selection committee decided to give the award to the Trust based on the following criteria:

- The site contributes to the expansion of knowledge, gives evidence of innovation in presentation, or demonstrates a creative approach in its treatment.
- The site has a relevance for New Jersey's citizens
- The site contributes to enhancing the quality of life for New Jersey's citizens.
- The site contributes to an understanding of state or local government processes or functions.
- The title reflects actual contents, the site achieves its intended purpose, and the format is appropriate to the contents.
- The information available is written in a lucid style comprehensible to non-specialists.
- The site is easy to navigate and/or provides a search engine.
- The site is generally pleasant to access due to physical appearance, layout, organization, use of color, or ease of use.
- The site makes use of electronic enhancements such as hypertext links, thumbnail graphics, etc.

The Trust's website was totally revamped in 2019 as part of the Trust's 50th Anniversary celebrations. To commemorate the Trust 50-year commitment to the protection of New Jersey's biodiversity, the New Jersey Heritage Program created an interactive Story Map {hot link} for the website profiling the world's largest known population of spreading globeflower, *Trollius laxus* ssp. *laxus*, a stunning state endangered and globally rare plant species, which also happens to be found on a Trust preserve. In addition to a couple of other new and nifty features, the website now includes links to all of the Trust's Annual Reports going back to 1984, the first year an annual report was produced. In 2018 DANJ recognized the Trust's 2018 Annual Report as best official New Jersey publication or document. While there appear to be no additional DANJ award categories for the Trust to win, it will continue delivering award-winning caliber content to New Jerseyans through its Annual Report and website.

Petty's Island Update -- Journey Back to Nature

While 2017 and 2018 were years of great transformation from industrial to natural conditions on the island, 2019 marked a real beginning in public accessibility.

The Trust's easement authorizes twelve environmental education programs on Petty's Island annually. CITGO Petroleum Corporation has always been open to more generous access, but while Crowley Maritime was operating on the island, truck traffic was an impediment to expanded programming. Now that Crowley has relocated off of the island, CITGO has allowed the Trust to go well beyond twelve programs.

As part of its partnership with Discover the Delaware, almost 150 people visited Petty's Island last year. And more than another hundred visited through the Trust's direct partnership with Upstream Alliance. Discover the Delaware is a partnership of nine organizations working to promote education on and access to the Delaware River: NJ Natural Lands Trust, Camden

County, UrbanPromise, Center for Aquatic Sciences at Adventure Aquarium, New Jersey Conservation Foundation, Independence Seaport Museum, Cooper's Ferry Partnership, Camden County Utilities Authority, and Upstream Alliance. Discover the Delaware was awarded a two-year grant in 2018 by the National Fish and Wildlife Foundation (NFWF) to fund educational opportunities on the Delaware River in the Camden/Philadelphia area. Under this grant, the goal is to engage area students to "maximize environmental learning, stewardship identity and conservation behaviors through different developmental stages and offer a pathway into conservation careers." Upstream Alliance's mission is "to provide significant outdoor environmental education experiences to prepare the next generation to be leaders and stewards of a sustainable environment."

Through its Discover the Delaware partnership, the Trust was privileged to host the Blue Sky Funders Forum (Blue Sky) on Petty's Island. Blue Sky is a national collaborative of more than 30 philanthropic organizations that "helps members learn, connect, and grow philanthropy that supports the many benefits of environmental literacy and stronger connections to nature." Blue Sky members are "united in the belief that when people have meaningful experiences outdoors their quality of life, health and social wellbeing improve, and in turn, their communities become stronger and more sustainable. ... by making these essential learning opportunities more accessible, we grow and strengthen the constituency that makes well-informed choices, balancing the needs of today with the needs of future generations."

In addition to these programs with Discover the Delaware and Upstream Alliance, the Trust provided access to more than 520 people through its contracted programming with the New Jersey Audubon Society (Audubon). Complementing its bird and history hikes and clean ups, Audubon has also offered new art programs and a bat program. Hopefully we'll be able to offer even more new and interesting programs in the future. For information about upcoming programs, please check the Audubon program page at: http://www.njaudubon.org/Go/Petty.

While access to the island is only permitted through a structured program, anyone can enjoy a kayak or canoe paddle in the Delaware River Back Channel or along the shoreline of Petty's Island. While paddling around the island, visitors can access the TravelStorys app to listen to ten different stories about the island and its history. TravelStorys is a free downloadable app that plays stories at GPS-triggered locations along Petty's shoreline if the TravelStorys app has been downloaded and is open. To download the app?, hear the stories online or get more information, please visit https://www.travelstorys.com/tours/158/Petty's%20Island%20Paddle.

For the third consecutive year, the Trust participated in River Days, a series of events sponsored by Alliance for Watershed Education (AWE) centers throughout September. Through River Days, AWE aims to raise awareness about the 13,500-square mile system which provides clean drinking water for 15 million people. The 23 AWE centers are located along the major Circuit Trails or connecting trails throughout the Delaware River watershed in Pennsylvania, New Jersey and Delaware. These centers share a mission to collectively increase and enhance constituent appreciation and stewardship of the Delaware River watershed. AWE is funded by the William Penn Foundation.

Although it hosted some of its own River Days events at Petty's Island, the Trust also participated in the Delaware River Festival located along both the Camden and Penn's Landing

waterfronts. This year, the Delaware River Festival co-occurred with the Camden Jam Festival allowing thousands of people to learn about opportunities to explore and enjoy the Delaware River. Attendees were able to visit both sides of the river by riding the RiverLink Ferry for free or by joining in a morning bike ride over the Ben Franklin Bridge. Planning for Delaware River Festival 2020 on September 26th is underway. Activities will be free and family friendly. Hope you can join us.

The Trust also participated in other Camden community events throughout 2019, including National Night Out. At National Night Out, the Center for Aquatic Sciences brought turtles and other critters while the Trust offered bilingual information (en Español e Inglés) about Petty's Island programming and its future.

During the summer of 2019, the William Penn Foundation sponsored each of the AWE centers to host a summer fellowship. The Trust shared its fellow with the Center for Aquatic Sciences. The Trust's fellow, Taylor Melodick-Robinson, worked to develop stewardship and conservation projects and programs at Petty's Island and the Center for Aquatic Sciences. Taylor and a few of the other fellows got together on Petty's Island one day to paint and prepare American kestrel bird boxes for use at Petty's and other locations. Once the Trust's second documentary, *Petty's Island: A Journey Back to Nature*, was finalized by the Camden County Historical Society and its producer, Adin Mickle, in the late fall, Taylor scheduled and represented the Trust at numerous film screenings throughout Camden County at libraries and community meetings.

We are excited to announce that the documentary *Petty's Island: A Journey Back to Nature* has been accepted into the 2020 Philadelphia Environmental Film Festival! And it will also be shown at special screening events sponsored by the Camden County Historical Society and Duke Farms.

While waiting for the New Jersey Department of Environmental Protection to complete its review of proposed site remediation activities at Petty's Island, the Trust continues to look for ways to expand public access and opportunities because, as is so well said above by the Blue Sky folks, "when people have meaningful experiences outdoors their quality of life, health and social wellbeing improve, and in turn, their communities become stronger and more sustainable." That is exactly what is hoped for when Petty's Island is fully owned by the Trust and fully open to the public.

Trust Celebrates its 50th Anniversary

Throughout 2019, the Trust enjoyed many opportunities to celebrate it milestone anniversary of 50 years of conservation. As mentioned earlier, the Trust updates its website to be more modern and user-friendly. The best website award was, of course, the icing on our Trust anniversary cake!

The Trust had a big bash at Petty's Island for its June Board of Trustees meeting. Some former trustees were able to join us including Dave Moore, former Executive Director of the NJ Conservation Foundation, who was the brain-child for the Trust. He spoke about the genesis of his idea for the Trust and how proud he is that, 50 years later, the Trust is still a reality and still a success. NJDEP Commissioner Catherine R. McCabe, NJ Parks and Forestry Director Olivia Glenn, CITGO Manager Jack McCrossin and, of course, Trust Chair Michael Catania all shared

their thoughts about the Trust. It was truly a special occasion with everyone enjoying the fabulous weather and panoramic views from the envisioned location of the future Petty's Island Environmental Education and Cultural Center.

In honor of its 50-year commitment to the protection of New Jersey's natural diversity, the Trust marked the anniversary with the listing of the Trust's Bennett Bogs and Hirst Pond preserves on the Natural Areas Register. With Designation Studies already completed and signed by DEP Commissioner McCabe, it is our hope that both preserves be designated to the New Jersey Natural Areas System in 2020.

In what was quite an honor, in 2019 the New Jersey Legislature passed a Joint Legislative Resolution in which the Legislature "congratulates the New Jersey Natural Lands Trust upon the auspicious occasion of its Fiftieth Anniversary, pays tribute to its meritorious record of service, leadership, and commitment, and extends sincere best wishes for continued success and vigor in all the years to come." Hear, hear, and thank you to all who in person or in spirit helped the Trust to mark this important milestone.

Proposed adding whole page copy of resolution in report.

Because the Trust's mission is to preserve land in its natural state and protect New Jersey's natural diversity, our annual report profiles a selected rare plant each year. This year we profile Panicum hirstii,

The Hirst Brothers' Panic Grass

It is easy to profile a wildflower and include lots of pretty pictures. So why has the Trust decided to profile a grass this year? Well, grasses don't get enough attention. We are surrounded by grasses and probably can't distinguish one from the other. Yet, grasses are the third largest plant family, and grass species are more broadly represented around the world than any other species of any other family and are a staple of our diet in the form of wheat, corn, oat, barley, and rye. We should all know more, right?

So, let's get started. Grasses are classified as "monocots," which means that their seeds contain only one cotyledon, or embryonic leaf. Their tissue does not form wood and their stems do not increase in girth as they grow. Monocots have root systems that tend to form a dense, fibrous mat. This rooting structure made it possible for early settlers to cut out blocks of grass with its dense mat of roots to form sod houses.

Remember, I said it's easy to profile a plant with a flower. Well guess what? Grasses have flowers too. Because most grasses are wind-pollinated, their need to attract pollinators with bright and showy blossoms is minimal, making their flowers so small and inconspicuous that most people do not believe that grasses have flowers. Grass flowers or clusters of flowers known as inflorescences, may be arranged in tightly packed vertical clusters called spikes, or more branched and spreading clusters called panicles. The most obvious flower part is often the pollen-filled anthers protruding from the flower.

So, now that we know a little about grasses, let's focus on this particular grass. Hirst Brothers' panic grass (*Panicum* or *Dichanthelium hirstii*) is a perennial that produces upright (erect) leafy

flowering stems (culms) from May to October. The clustered culms grow 8 to 23 inches high. The flower cluster is a panicle that is 1 to 4 inches long and sparsely flowered with finely hairy spikelets. The panicles sometimes stay hidden among the densely branched stems. The narrow leaf blades are 1 to 5 inches long and variably smooth or hairy. Spring culms are produced in May and June, and there are two autumnal phases each with flowering from August through the first frost. Hirst Brothers' panic grass is ranked as globally imperiled and state endangered. It was also being considered for federal listing as a threatened plant species, but more about that later.

This grass is named for two brothers, Frank and Robert Hirst, who first discovered the species in 1958 in two coastal plain intermittent ponds in Galloway Township, Atlantic County, New Jersey. The brothers enjoyed exploring the coastal plain intermittent ponds of the New Jersey Pine Barrens and were known to say to each other, "Let's go pondin' today!" Their pondin' adventures led to many plant discoveries. In 1961 the Hirst Brothers' panic grass was formally recognized as a plant new to science. It is now known from three sites in New Jersey in Burlington and Atlantic counties, one site in Delaware, two sites in North Carolina, and one site in Georgia. Fortunately, two of the three sites in New Jersey are in public ownership including the original location of discovery.

In 1984, The Nature Conservancy (TNC) acquired the two ponds where Frank and Robert Hirst made their initial discovery. TNC eventually transferred the property to the New Jersey Natural Lands Trust, which manages it as the Hirst Ponds Preserve. The smaller of the two ponds, to the north and known as Barkwoods Pond (so named for an adjacent pet kennel), contains occurrences of the Hirst Brothers' panic grass, state endangered Boykin's lobelia (*Lobelia boykinii*) as well as three other rare plants, rose-color coreopsis (*Coreopsis rosea*) and mudbank crown grass (*Paspalum dissectum*) and Pinebarren smokegrass (*Muhlenbergia torreyana*). It is also known for a historic occurrence of the state endangered slender arrowhead (*Sagittaria teres*). The larger pond, known as Labounsky Pond, sits at the southern end of the preserve and also contains occurrences of Hirst Brothers' panic grass, Boykin's lobelia and four other rare plants, rose-color coreopsis, mudbank crown grass, narrow-leaf primrose-willow (*Ludwigia linearis*) and floating heart (*Nymphoides cordata*).

Hirst Brothers' panic grass occurs in coastal plain intermittent ponds, usually in pine barren habitats. The species requires habitats that are at least intermittently wet (flooded during the winter and spring and dry in summer and fall), receiving full sun to light shade, and substrates that are organic but firm (muck over sand). It occurs in flat-bottomed depressions with substantial water-level fluctuations dependent on rainfall but relies on periods of standing water to keep competing species at a minimum. Habitats supporting Hirst Brothers' panic grass may have historically burned during dry cycles, which may also help maintain early successional conditions by preventing encroachment of trees. Individual populations can vary dramatically in size from year to year. The plants may not make an appearance for years.

Indeed, Hirst Brothers panic grass has not been observed at Barkwoods Pond since 1992 and at Labounsky Pond since 2003. This is not surprising, however, given that coastal plain intermittent ponds are inherently variable, with plants responding to hydrologic changes so that many years, or even decades, may elapse before conditions are again suitable. It is hard to know which hydrologic changes are cyclical and will eventually return to a favorable state for the grass, and which changes are permanent and threaten the grass's survivability such as habitat loss and

hydrologic alterations resulting from development or climate change (increased rainfall and temperatures), or natural competition and encroachment by other species, especially woody vegetation, or disturbance to habitat from off-road vehicles.

Because of the potential threats to survivability and the fact that there are only eight populations worldwide, Hirst Brothers' panic grass had been recognized as a Federal candidate for listing from 1998 through the fall of 2016. On October 6, 2016, the U.S. Fish and Wildlife Service (USFWS) published a Federal Register notice that the Hirst Brothers' panic grass does not warrant listing under the Endangered Species Act due to questions about its taxonomic status. The decision was reached as part of a litigation settlement between the USFWS and the Center for Biological Diversity, which required the USFWS to decide on the status of this species.

As the basis for its decision, the USFWS relied upon the Flora of North America Project as the authority on plant taxonomy and accepted their determination that Hirst Brothers' panic grass as synonymous with another grass, Roanoke witch grass (*Dichanthelium dichotomum* ssp. *roanokense*). At the time the USFWS made their determination, three studies identified it as a distinct species and specifically differentiating it from Roanoke witch grass. Most significantly, since the USFWS made its determination, a peer-reviewed paper was published that unequivocally determined that Hirst Brothers' panic grass deserves species status. The loss of candidate status has resulted in a loss of federal research funding making it harder to determine whether the plant's lengthy absence from the few ponds it calls home is truly a decline in the population, or whether it's just a result of cyclical, hydrological fluctuations. The Trust is hopeful that the USFWS will eventually reconsider its decision on the taxonomic status of Hirst Brothers' panic grass.

Grasses are important to Planet Earth for ecological and other reasons. So, make time to stop and smell, and hopefully appreciate the grasses in our world, as well as the teeny tiny flowers that are part of them.

Sources:

Need citation to new peer-reviewed publication

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U.S. Fish and Wildlife Service. 2016. Candidate Notice of Review. Federal Register Vol 81, Pages 69425-69442 (Document Number 2016-24142).

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Walz, K.S. 2012. The legacy of Hirst Brothers' panic grass. United States Fish and Wildlife Service, Endangered Species bulletin, November-December 2012.

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Mackenzie's Bog

Mackenzie's Bog is a new Trust preserve named for Kenneth Kent Mackenzie, the botanist who first discovered its botanical splendor in 1914. A New York City attorney, Mackenzie became one of the most knowledgeable field botanists in New Jersey while he was a state resident from approximately 1902 until his death in 1934. In addition to discovering hundreds of rare plants, he also discovered some of the state's most important botanical sites, including Andover Junction (now part of Kittatinny Valley State Park), Mashipacong Bogs (now a preserve of The Nature Conservancy (TNC)), Dunnfield Creek (now part of Worthington State Forest) and Johnsonburg (also now a TNC preserve).

Mackenzie's Bog was formerly owned by TNC and under its ownership was called the Sussex Swamp Preserve. In 2019, the entirety of TNC's preserve was generously transferred to the Trust along with a stewardship endowment.

The preserve is approximately 270 acres. It was once farmland but now protects one of New Jersey's best and largest limestone fens. Limestone fens are groundwater-fed wetlands underlain by calcareous limestone and are often rich in biodiversity. Surrounded by stunning limestone ridges and mixed-hardwood forest, the preserve includes a portion of the Stickle Pond watershed. Numerous rare plant species occur with Mackenzie's Bog Preserve including the state endangered pale-laurel (*Kalmia polifolia*), bog willow (*Salix pedicellaris*), rush aster (*Aster borealis*), bog rosemary (*Andromeda polifolia* var. *glaucophylla*) and Labrador marsh bedstraw (*Galium labradoricum*), most of which were discovered by Mackenzie. The preserve is also habitat for rare animal species such as federally and state endangered Indiana bat, state endangered bobcat and state threatened barred owl and Kennedy's emerald. The Mitchell's satyr butterfly was first discovered in New Jersey at this site in the mid-1960s. However, the butterfly disappeared from New Jersey shortly thereafter, perhaps as a result of butterfly collecting.

In addition to runoff from an adjacent neighborhood and off-road vehicle use, recent threats to the preserve's habitat include succession of woody vegetation and spread of non-native invasive plants. Before the property was transferred to the Trust, the Trust and TNC's land managers worked together to control the woody vegetation and invasive plants. The Trust will continue these efforts as well as others designed to improve the habitat for rare plants and insects such as lepidoptera (butterflies and moths) and odonates (dragonflies and damselflies). Maybe someday we'll see the return of Mitchell's satyr.

This and other Trust preserves are open for passive recreation from dawn to dusk. We hope that visitors will enjoy this preserve and appreciate and respect its special habitat for plants. Maybe you can hone your skills as an amateur botanist at Mackenzie's Bog Preserve and become the next Kenneth Kent Mackenzie.

Sparse Finds, But Not for Lack of Effort: Biodiversity Inventories Reveal Few Rare Species Despite Extra Fieldwork

Three Trust preserves were checked off the long list in the que for biodiversity inventories this year. Based on years of on-the-ground monitoring, these preserves inspired high expectations for new finds of rare and endangered species. Each represented quality habitats, were fairly

large in size, and were representative of key regionally important ecological community types. Review of information gathered from the NJ Natural Heritage Program's Biotics database suggested a likely bounty of discoveries.

In north Jersey, a 365-acre study site which combined two Sussex County parcels, Wallkill Preserve and nearby Sterling Hill Preserve, was selected for research. Wallkill Preserve follows the river valley for which it was named. Along the winds and bends of this northward flowing river are remnant pockets of ancient prairie fens, bogs, and swamp forests which are home to numerous herptiles and diverse wetland plants. The adjoining limestone forest uplands were considered potential holdouts for rare plants. What's more is the extremely unique bedrock geology of the Sterling Hill Preserve known around the world for its rare Franklinite and Ogdensburgite minerals, not to mention the spectacular assembly of florescent minerals glowing in shades of orange, red and blue when viewed under black lights. These features would seem to lend a high probability for new species discoveries.

Likewise, central to the south Jersey Pine Barrens is the Trust's Sooy Place Preserve. Spanning over 1,300 acres in Burlington County, Sooy Place has wetlands described in old school terms such as spungs and bourns, and supporting coastal plain ponds and acre upon acre of pitch pine trees. The Pine Barrens have long been known for plants found nowhere else, and Sooy Place would seem to typify such a unique area worthy of inventory.

Qualified consultants having the needed combined skill-sets in botany, herpetology and entomology were hired and included first time ecological consultants for the Trust. February thaws got the two consultant teams out stalking the woodlands and compiling lists of nature's elements.

EcolSciences Inc. was awarded the job to survey Wallkill and Sterling Hill preserves. The consultants systematically examined all corners of the preserve, performing surveys for plants and butterflies by day and moths and bats by night. Determined to deliver a quality product, the 15 days required for the job stretched to more than 30 days, just to be thorough. Some new Natural Heritage reports of rare plants including Virginia bunchflower (*Melanthium virginicum*) and Devil's-bit (*Chamaelirium luteum*) resulted from this endeavor. In addition, recordings confirmed sonar notes of Indiana Bats and Northern Long-eared Bats darting though the sky to catch nighttime flying bugs.

The EcolSciences team, however, met with some disappointment when, even after diligent searching of hopeful habitats, they discovered only a few salamanders of just two species. The team prepared management recommendations designed to improve and direct future conservation actions.

To the south, the Sooy Place inventory was directed by Dr. Walter F Bien, of BN Applied Ecological & Biological Sciences (BN). Dr. Bien and his associate investigators are well respected and highly qualified in all aspects of Pine Barrens ecology and introduced new and innovative methods into their fieldwork. Of note was the use of aerial drones to conduct reconnaissance flights in search of key habitats worthy of ground truthing. Such sites might have been easily overlooked by walking through the tangles, swamps and smilax tickets of the preserve. The technique paid off, with updated reports of the iconic Pine Barrens treefrog and Pine Barrens reedgrass (*Calamovilfa brevipilis*) and discovery of massive heritage trees and

delicate damselflies. Once again, days and days of work beyond that required for the job made certain that no spung or bourn went unvisited. Dr. Bien's team welcomed other botany colleagues to join them in establishing long-term vegetation research plots in wetlands and upland habitats. BN compiled all data into a concise report of what was done, how it was done, as well as their valued recommendations to improve the ecological communities.

Overall, although much time, work and skills were employed in this year's inventories, reports of endangered and threatened species discoveries were somewhat underwhelming. But certainly not for lack of time or energy. It's important to consider that all species, whether common or rare, make their unique contribution to a natural and functioning ecosystem. The Trust continues to learn from the data collected each year, and new surveys are already in the que for next year.

Setback to Succession at Bennett Bogs

For a decade or more they've been reverting into woods, a setback for plant diversity and conservation.

Since they (the ponds, that is) were discovered to be one of New Jersey's premier botanical hot spots in 1907 by Bayard Long and others, they've been best remembered as an open, wet meadow. The North, South and Woods ponds make up the Natural Lands Trust's Bennett Bogs Preserve in Cape May County. Each pond had a meadow-like quality, and in some years, they were even cut and baled for hay. Maintained as such, these prime meadow conditions supported an unparalleled diversity of some of the most spectacular wildflowers in south Jersey. It was and still remains a popular destination for botanists and naturalists throughout the blooming seasons for firsthand observations of colorful orange milkwort (*Polygala lutea*), rattlesnake-master (*Eryngium aquaticum*), and white fringed orchid (*Platanthera blephariglottis*). Some of these favorites of the botanically inclined, such as the snowy orchid (*Platanthera nivea*), were found in few other places in New Jersey. The bogs were of such notoriety and importance that by 1950 the New Jersey Audubon Society acquired and established its first nature sanctuary here and for the conservation of plants.

But, over time, would come a setback. The routine mowing that had kept the meadow-like bog open and grassy had come to be forgotten, resulting in more than a decade without needed management and a switch in vegetation from grassy to woody. A decline in the blooming splendor at Bennett Bogs ponds soon followed.

When the Trust gained ownership of the ponds in 2018 through land donations from The Nature Conservancy and the New Jersey Audubon Society, another setback for the bogs was put into motion. This was to set back years of woody tree growth that was now shadowing out sunlight to the ponds. Advancing conservation required mowing the three ponds and reverting them to the grassy, wet meadow most favored by the rare flora.

After a three-year pursuit to set back vegetation succession, the ponds are once again ready to bloom. David Snyder, State Botanist, has been most encouraged by the tree removal work. After a recent visit to review the finished work he commented with an email to the Trust...

"Stopped by the bogs yesterday. They look fantastic—best I have seen since 2002 when the last deep mow was done...The ponds were essentially dry although a puddle or two could be found if searched for. If low water levels continue through year, it should be a great year for the herbaceous plants."

So, while a pause in meadow mowing dealt a setback to Bennett Bogs' botanical bounty, recent mowing by the Trust has set back succession of unwanted woody vegetation -- moving conservation forward.

iNaturalist at Trust Preserves: njnltrapp

Since learning about the iNaturalist app from Jason Hafstad, youthful botanist for the New Jersey Department of Environmental Protection, Division of Land Use Regulation, the elder Trust preserve manager Martin Rapp has managed to take advantage of this technology. Mr. Rapp has established his own iNaturalist "handle" njnltrapp. He has recorded over 250 observation of 210 species. You can follow his preserve monitoring trip discoveries at iNaturalist.com.

In his musings as an old-timey field biologist, Martin came to realize that iNaturalist has rendered his natural history field book library--collected over his 40-year career--somewhat obsolete, along with his map and compass skills and much of his other Boy Scout and farm hand wisdom.

"Perhaps it's time to step into the new ecology that apps such as iNaturalist brings, or step aside" says Mr. Rapp. Seems it's not yet time for Martin to step aside.

Hunting Update

During the 2019-2020 hunting season approximately 3,398 hunters registered at Trust preserves through its website: www.njnlt.org. The Trust allows deer hunting only at many of its preserves to maintain biodiversity. The deer population in New Jersey is far greater than the ecosystem can sustain. Over-browsing by deer depletes native vegetation resulting in impacts to animal and plant habitat, such as decreased food sources and increased invasive plants.

To hunt deer at selected Trust preserves, hunters access the Trust's website, electronically submit information to the Trust, and print their own hunter registration letter with the required accompanying preserve map. The Trust can use this information to sort hunter registrations by preserve. Trust staff may reach out to hunters registered at a specific preserve to determine their interest in volunteering for clean-ups and maintenance projects. This year the Trust eliminated its "lottery" system for the ever-popular Limestone Ridge Preserve and Thomas F. Breden Preserve at Milford Bluffs. One reason for this decision was that it was impossible to figure out a fair way to implement the lottery. As soon as the Trust would tinker with the technology to eliminate redundant submissions, or false submissions, it seemed that a technical work around to our fix was discovered. Therefore, the fairest approach seemed to open these preserves to everyone equally. Admittedly we weren't sure how well this was going to work but it turned out just fine. Since this approach is fairer and seems to work, the lottery is officially a thing of the past.

It is important to note that the Trust does not allow hunting for waterfowl, small game, turkey or bear, as it maintains that only over-browsing by deer poses a threat to biodiversity. In addition, Sunday bow hunting is not authorized on Trust preserves as it is on state wildlife management areas and private property during deer season.

While hunting on Trust preserves, all rules and regulations in the New Jersey Division of Fish and Wildlife game code must be followed. Hunting deer by bow and arrow, shotgun or muzzleloader are acceptable, depending on the preserve. No target shooting or discharge of weapons other than for deer hunting purposes is permitted. Permanent deer stands are not allowed, and portable deer stands, while permitted, must be removed after the hunting season is completed or are subject to confiscation by the Trust.

Thanks to Our Volunteers

The Trust would like to acknowledge and thank its many volunteers for their invaluable contributions to the maintenance of Trust preserves. If you are interested in becoming a Trust volunteer monitor or attending a workday, please contact the New Jersey Natural Lands Trust at 609-984-1339, or email NatLands@dep.state.nj.us.

Donations

The New Jersey Natural Lands Trust gratefully extends its thanks to the following who have donated land, funds or services to the Trust in 2019 to help preserve and protect New Jersey's natural diversity:

Duke Farms
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NJ Conservation Foundation
The Nature Conservancy
New Jersey Audubon Society
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John King
William "Bill" Schmitz
Barnegat Bay Sportsmen's Club
Upstream Alliance
Wayne Township
Wildlife Preserves, Inc.
The Nature Conservancy
Immaculate Heart Academy
National Fish and Wildlife Federation
Urban Promise

For more information about how you can donate to further the Trust's mission to acquire, preserve and manage natural lands for the protection of natural diversity, please call 609-984-1339.

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