BURLINGTON COUNTY NATURAL SCIENCES CLUB NEWSLETTER

May, 2009

Meeting: Wednesday, May 13, 2009 at 7:45 p.m.
Community Center at Lumberton Leas, Woodside Drive, Lumberton

The program for the May meeting will be:

Butterflies of South Jersey

Presented by Jennifer Bulova

Jennifer Bulova, naturalist for the Burlington County Park System, will show us the beauty of our native butterflies as she describes their lifestyles, adaptations and habitats.

As park naturalist Jennifer is responsible for planning and conducting nature programs and all other aspects of environmental education for the public. She holds a Bachelor of Science degree in Natural Resource Management with a specialization in Conservation and Ecology from Cook College, Rutgers University. She is also certified in the field of GIS (Geographic Information Systems), and currently handles the data management and map creation for open space preservation and parks.

Field Trip: Saturday, May 16, 2009

Field Trip: Birds and Butterflies of Burlington County

Park naturalist Jennifer Bulava will help us identify birds and butterflies while exploring habitats along the trails at Long Bridge Park, located just to the west of Mt. Holly. Twenty-four butterfly species have been identified at Long Bridge, plus more than 60 species of birds, so it should be a productive morning. Wear light colored clothing and bring binoculars, insect repellent and bottled water. Rain will cancel the trip. Meet at 9:00 am at the Long Bridge parking lot, which can be accessed from Deacon Road (off Marne Highway) or eastbound Mt. Holly Bypass. Find an animal sightings list and downloadable map can be found on Burlington County NJ Parks web site.

Pinelands Update

Last week the Pinelands Preservation Alliance joined numerous other New Jersey conservation organizations at a news conference in Trenton to urge the Governor to fill vacant seats on four critically important commissions and councils. These seats have remained vacant, some for many years, because Governor Corzine has failed to make the appointments. The conservation community has submitted list after list of suggested appointees, but with little response from the Governor's office.

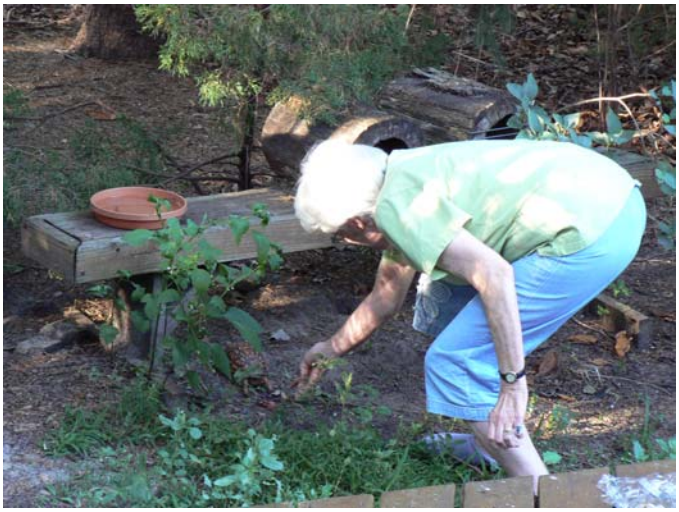
The Pinelands Commission has two gubernatorial vacancies, an empty Chairperson's seat and three expired terms awaiting Corzine's action (previously appointed representatives with expired terms serve until they or their successors are appointed). Others with gubernatorial vacancies include the Highlands Council, The recently created New Jersey Coastal and Ocean Protection Council and the venerable Fish and Game Council.

You can help by sending a letter to Governor Jon Corzine, PO Box 0001, Trenton, NJ 08625, or by calling the Governor's office at 609-292-6000 urging the Governor to act. You can download a sample letter from PPA's website: www.pinelandsalliance.org.

*** Directions to Lumberton Leas**: From Route 70 (old Medford Circle) take Route 541 North 4.1 miles to Lumberton. Turn left on Route 640 (Creek Road). Proceed one mile and turn right onto Woodside Drive at Lumberton Leas. Community Center at rear of development.

BIG MOMMA by Nels Anderson

Living in a wooded area over the years Eastern Box Turtles (Terrapene carolina) have visited our yard on many occasions. Early on it was found they could be fed and I can't recall how or why but strawberries were first offered. These were readily accepted if we backed away. Later on tomatoes came on the menu and when we saw a Box Turtle they were quickly offered tomato pieces.



Doing a little research it was learned that they commonly live 25 to 30 years and there are documented cases of them living to 40 or even 50 years yet that may be difficult with today's hazards. They remain in a half dozen acre area all their lives so it is very possible we have had frequent flyer visitors to our yard.

Big Momma showed up in June. She was a large specimen not at all concerned with our near presence readily accepting food. Within days she would actually come to hand held food. At this point an experiment offered itself. How broad was her range of food? Strawberries, tomatoes, peaches, plums, pork, and salmon were no problem. Bologna? Yup, she liked that too as well as chicken tenders, bananas and even London broil. She had to gum the beef a lot but went through several spoon sized pieces and even carried away a snack for later as she trundled away. On a few occasions after dining she would go a short distance, turn around, and back into a shrub or leaf litter quickly disappearing out of sight. Perhaps getting out of the heat or a snooze may have been in order.

Going through the many nature books on hand to help determine the turtle's sex we found there are several characteristics that can often be used to correctly determine the sex of a box turtle. Probably the two most reliable features used to sex box turtles are shell shape and tail length. Males generally have longer and wider tails than females as well as more flattened shells. Two other features useful in sexing box turtles are eye color and plastron (bottom of the shell) concavity. In general male box turtles have very orange or red eyes and a slightly concave plastron while females have brown or light orange eyes and a plastron that is almost completely flat. (Davidson College Herpetology Lab).

Procreation is said to be happenstance as the result of a pair just bumping into one another. "Do you come here often?" This is somewhat casual yet it seems to work as there are numerous Box Turtles.

Our highlight was in late June as she approached with a glow to her neck and front legs shining orange yellow. She ate little that we could see and backed under some pine ground cover only to begin digging in with her back claws. We could only think she was preparing to lay eggs. When she emerged and hour or so later the hole was covered over. The next time she returned the blush was gone and the appetite had returned. She grew visibly larger over time and as summer waned we saw her less often. The eggs take about three months for incubation, depending on temperature. We feed a lot of birds and critters so we are rewarded by seeing them as well as their young at close hand. Now if we could just see a fistful of little Box Turtles crawling around, that would be a sight not soon forgotten.

Field Note

On Friday, May 1, 2009 my son Colin and I took a short hike down along the Delaware River in Cinnaminson off of Inman Avenue near Taylor Wildlife Preserve. The tide was low so we walked out onto the river bed. At this location there is a small stream which flows into the river. Since it was low tide the stream was flowing across the sandy river bed in small rivulets. Colin spotted a small fish in the stream and was able to scoop it up with his hands. Looking at the fish we quickly determined it was a stickleback. Closer examination we identified it as a Fourspine Stickleback *Apeltes quadracus* .

Male Fourspine Stickleback from Cinnaminson, NJ

This was the first time I have ever seen a stickleback in this part of the Delaware River. The Fourspine Stickleback is one of the smallest fish (1.5 to 2.5 inches long) to live in the tidal portions of the Delaware River. It is more commonly found in brackish to salt water along coastal New Jersey but is know to live fresh water too.

Ned Gilmore

The 2008, Pinelands Christmas Bird Count Data

	2008 Pinelands NJPI Christmas Bird Count Count Day: 12/14/08	Taber-nacle	Carr-anza	Indian Mills	Whrtn State Fst.	Ancora	Wins-low	Wtrfd South	Wtrfd North	Dell-ette	Medfd Lakes	Cedar Run	Eve-sham	Total
1	Common Loon													
2	Pied-billed Grebe				1									1
3	Horned Grebe													
4	Double-crested Corm.													
5	Great Blue Heron			1		3		1		2				7
6	Great Egret													
7	Little Blue Heron													
8	Green Heron													
9	Black-cr. Night Heron													
10	Tundra Swan													
11	Mute Swan					15								15
12	Snow Goose			26				55						81
13	Brant													
14	Canada Goose	7		974	7	312		54		173	12		22	1561
15	Wood Duck					2								2
16	Green-winged Teal													
17	American Black Duck	1		36						2				39
18	Mallard	86		131	7	44		22		29	7		12	338
19	Northern Pintail													
20	Blue-winged Teal													
21	Northern Shoveler													
22	Gadwall									1				1
23	American Wigeon													
24	Canvasback													
25	Redhead													
26	Ring-necked Duck			4										4
27	Greater Scaup													
28	Lesser Scaup													
29	Scaup sp.													
30	Oldsquaw													
31	Common Goldeneye									1				1
32	Barrow's Goldeneye													
33	Bufflehead													
34	Hooded Merganser				8	5								13
35	Common Merganser													
36	Red-brstd. Merganser													
37	Ruddy Duck													
38	Black Vulture	2									4			6
39	Turkey Vulture	8	5	9	5	16		6		26			4	79
40	Osprey													
41	Golden Eagle													
42	Bald Eagle	3	1	1	3			2		2				12
43	Northern Harrier			1		1				1				3
44	Sharp-shinned Hawk	1				2				1				4
45	Cooper's Hawk	2	1		1	1				1	1			7
46	Northern Goshawk													
47	Red-shouldered Hawk	1				1		1						3
48	Broad-winged Hawk													
49	Red-tailed Hawk	2	2	2	5	21		2		2	1		1	38
50	Rough-legged Hawk													
51	Golden Eagle													
52	American Kestrel					1								1
53	Merlin									1				1
54	Peregrine Falcon													
55	Ring-nkd Pheasant													
56	Ruffed Grouse													
57	Wild Turkey							25			20			45
58	Northern Bobwhite													
59	Virginia Rail													
60	Sora													
61	American Coot													
62	Killdeer	5						2						7

		Taber-nacle	Carr-anza	Indian Mills	Whrtn State Fst.	Ancora	Wins-low	Wtrfd South	Wtrfd North	Dell-ette	Medfd Lakes	Cedar Run	Eve-sham	Total
63	Solitary Sandpiper													
64	Wilson's Snipe													
65	American Woodcock									1	1			2
66	Ring-billed Gull					5		11		9				25
67	Herring Gull				3					1				4
68	Thayer's Gull													
69	Iceland Gull													
70	Lesser Black-bkd Gull													
71	Great Black-bkd Gull													
72	Gull sp.										1			1
73	Rock Dove							26						26
74	Mourning Dove	2		7	115	75		35		27	10		2	273
75	Barn Owl													
76	Eastern Screech-Owl													
77	Great Horned Owl									1	2			3
78	Barred Owl													
79	Long-eared Owl													
80	N. Saw-whet Owl													
81	Belted Kingfisher			1		1				3			1	6
82	Red-headed Woodpecker													
83	Red-bellied Woodpecker	1		4	3	4		5		12	2		2	33
84	Y.- bellied Sapsucker													
85	Downy Woodpecker	2		5	3	5		3		8	4			30
86	Hairy Woodpecker			1	1			1		6	4			13
87	Northern Flicker			1	8	2		1					1	13
88	Pileated Woodpecker													
89	Eastern Phoebe									1				1
90	Horned Lark													
91	Tree Swallow													
92	Blue Jay	8	2	7	6	30		26		16	4		26	125
93	American Crow	22			16	13		42		2			20	115
94	Fish Crow													
95	Crow sp.										5			5
96	Black-cpd. Chickadee													
97	Carolina Chickadee	13	9	7	26	14		26		36	33		23	187
98	Tufted Titmouse	9	1	6	8	15		29		29	24		16	137
99	Red-brstd. Nuthatch									2				2
100	White-brstd. Nuthatch	5	1	5	6	4		4		12	5		1	43
101	Brown Creeper					1				2	1			4
102	Carolina Wren	17		11	6	2		3		11	12			62
103	House Wren													
104	Winter Wren													
105	Marsh Wren													
106	Golden-cr. Kinglet				11	3		5		6				25
107	Ruby-cr. Kinglet					1								1
108	Eastern Bluebird	6		16		38		14		10	1			85
109	Hermit Thrush							5		4	3			12
110	American Robin	3	3	2	13			9		65	14		7	116
111	Varied Thrush													
112	Gray Catbird													
113	Northern Mockingbird	7	3	10	4	21		6		3	5		1	60
114	Brown Thrasher													
115	American Pipit													
116	Bohemian Waxwing													
117	Cedar Waxwing							6						6
118	Northern Shrike													
119	European Starling	709		34	707		1111		250					2966
120	Yellow-rmpd. Warbler				9								6	15
121	Pine Warbler													
122	Palm Warbler													
123	American Wigeon													
124	Yellow-breasted Chat													
125	Western Tanager													
126	Northern Cardinal	8	1	14	3	18		9		8	9		4	74
127	Pyrrhuloxia													
128	Lesser Scaup													
129	Dickcissel													
130	Eastern Towhee													

		Taber-nacle	Carr-anza	Indian Mills	Whrtn State Fst.	Ancora	Wins-low	Wtrfd South	Wtrfd North	Dell-ette	Medfd Lakes	Cedar Run	Eve-sham	Total
131	Am. Tree Sparrow													
132	Chipping Sparrow	6	6	12										24
133	Clay-colored Sparrow													
134	Field Sparrow			7		3		1			5			16
135	Vesper Sparrow													
136	Lark Sparrow													
137	Savannah Sparrow									1				1
138	Fox Sparrow													
139	Song Sparrow	2		21	7	16		4		12	3			65
140	Lincoln's Sparrow													
141	Swamp Sparrow										2			2
142	White-thd. Sparrow	20		23	9	38		8		56	14		4	172
143	White-crwd. Sparrow													
144	Sparrow sp.													
145	Dark-eyed Junco	43	75	76	95	175		98		91	70		40	763
146	Snow Bunting													
147	Bobolink													
148	Red-winged Blackbird				55	275				36				366
149	Eastern Meadowlark													
150	Rusty Blackbird													
151	Common Grackle					8000				58				8058
152	Brown-hd. Cowbird					1000		1		12				1013
153	Blackbird sp.			4									50	54
154	Baltimore Oriole													
155	Purple Finch									2				2
156	House Finch	6	3	17	5	95		3		17	3			149
157	Red Crossbill													
158	White-winged Crossbill													
159	Common Redpoll													
160	Hoary Redpoll													
161	Pine Siskin									3	2			5
162	American Goldfinch	3	5	7	8	38		13		23	7			104
163	Evening Grosbeak													
164	House Sparrow	14			1	18		20		33				86
	TOTALS: (CD=Count Day)													
	CD Total Birds	1024	118	1483	604	11050	0	1695	0	1111	291	0	243	17619
	CD Total Birds - Starling	315	118	1449	449	10343	0	584	0	861	291	0	243	14653
	CD Species Total	32	15	34	32	43	0	39	0	50	33	0	20	69
	Count-period Species	0	0	0	0	0	0	0	0	0	0	0	0	0
	Grand Total Species	32	15	34	32	43	0	39	0	50	33	0	20	69
	COUNT ANALYSIS : (TH=Team-area Hour)													
	Total Birds/TH	256	30	345	71	1473	0	178	0	101	42	0	49	290
	Total Birds-Starling/TH	79	30	337	53	1379	0	61	0	78	42	0	49	241
	Total Species/TH	8.0	3.8	7.9	3.8	5.7	0	4.1	0	4.5	4.7	0	4.0	1.1
	TEAM-SPECIFIC INFORMATION :													
	Total Observers	0	2	2	3	3	0	2	0	3	2	0	2	19
	Field	0	2	2	3	3	0	2	0	3	2	0	2	19
	Feeder	0	0	0	0	0	0	0	0	0	0	0	0	0
	Team-Area Hours:													
	On Foot	0	0	0.3	1	2	0	2	0	9	2	0	0.5	16.8
	Car	4	4	4	7.5	5.5	0	7.5	0	2	5	0	4.5	44
	Total Team-area Hours	4	4	4.3	8.5	7.5	0	9.5	0	11	7	0	5	60.8
	Team-Area Miles:													
	On Foot	0	0	0.2	1.25	2	0	2	0	3.2	1	0	0.5	10.15
	Car	40	39	20.7	54.3	48.5	0	62	0	22.3	20	0	40	346.8
	Total Team-area Miles	40	39	20.9	55.55	50.5	0	64	0	25.5	21	0	40.5	356.95
	Feeder Hours	0	0	0	0	0	0	0	0	0	0	0	0	0
	Owling Hours	0	0	0	0	0	0	0	0	0	0	0	0	0
	Owling Miles	0	0	0	0	0	0	0	0	0	0	0	0	0

Count date - Sunday 12/14/2008

Weather Conditions : Partly cloudy; Wind 5–10 mph, W, Temp. 27-45F°; Standing water mostly frozen, running water open; No snow cover. CPS = Count-period Species - not seen during Count Day but seen during Count Period

Compiled and prepared by Robert Confer, 43 Falcon Drive, Southampton, NJ 08088; 609-859-2973; PARULA9@HOTMAIL.COM

GREEN ARCHITECTURE – A BEGINNING by Joe Costanza

We hear a lot about green architecture and sustainable design these days. But what is green architecture and what are its benefits? Through this series of newsletter articles I hope to make us aware of the many aspects of green design. To be fully successful, environmental design has to be a vital part of our society. It must become business as usual with the designer, the building owner, the municipal planning and zoning boards, our regulatory commissions, our politicians, and each of us. It's about our environment, and that's where we, as concerned members of a natural sciences club, come in.

But first of all, what's an article on green architecture doing in a newsletter of a natural sciences club? There are many compelling reasons. In spite of well-intentioned regulations designed to control development, thousands of acres of wildlife and native plant habitat are replaced by housing and commercial development each year. What land is left is often stressed by adjacent development where little concern has been given to proper environmental and ecological planning. Construction debris accounts for almost a third of what ends up in our burgeoning landfills, and much of it is left-over waste material. In the United States approximately 40% of our natural resources are consumed by the construction industry. In spite of sustainability measures, we use up natural resources faster than they can be replaced. We consume almost twice as much energy as our counterparts in the industrialized world, and a substantial part of that consumption comes from our buildings.

Green design got its impetus over forty years ago, and in spite of many very successful projects it still is not generally implemented or understood. Green architecture requires a strong commitment from all of the major players of a construction team; the architect, the contractor, and especially the owner. It really takes two to tango, and if either the architect or his client is not sympathetic to green design it will not happen. For the architect, green design often means more work and increased liability for the same fee. For the building owner (and bill payer) construction costs and building performance are major concerns. Although green construction has obvious long term cost benefits, it sometimes has a higher first cost than conventional construction. And for many years, most of the features that make a building green were experimental, and neither the owner nor the architect was willing to stick his neck out. So, in a litigious industry where low first cost usually determines a design's worthiness, green architecture often takes a back seat.

Today things are getting better. Most of our new construction incorporates green technology in one way or another. Our buildings are better insulated, and our appliances and lighting systems are more energy efficient. The *Leadership in Energy and Environmental Design* (LEED) green building certification program, initiated in 1994, is a requirement of all major government buildings and has been embraced by most of the design profession (more about LEED in a future article). Many of the features that were considered experimental a few years ago are better developed and more affordable. Manufacturers produce more green products and are increasing their use of recycled components. Municipalities are beginning to include green provisions in their building ordinances, and some even give tax abatements for green buildings. Universities now make green design a major part of their architectural curriculum, and sustainable design is a mandatory component of the continuing education requirements of the American Institute of Architects.

While green architecture certainly isn't the only answer to our environmental problems, it can be a major force for preservation and sustainability. But to be truly effective, it will require full acceptance by the construction industry and the support of the general public.

Newsletter

Please send any changes of name or mailing address, telephone, including area code, and, if you have one, an e-mail address to Erika Cowan at 24 Bartram Ave, Mt. Holly, NJ 08060. These are necessary to contact you quickly for any changes in the meeting place or for changes in field trips. If you would like to receive a electronic copy of the newsletter or any changes to your e-mail address, should be sent to Barbara Jones at wildbyrd@comcast.net. We would like to thank Barbara Jones, Joe Costanza and Nels Anderson for their submissions to the newsletter. We also like to thank Erika Cowan for the newsletter mailing. The newsletter is in need of field reports and articles. Just write them down and e-mail or mail them to egilmore@ansp.org or Ned Gilmore 720 Morgan Ave. Palmyra, NJ 08065. Deadline for September's newsletter is August, 25.

BCNSC

President: Cliff Jones (609-268-0940) wildbyrd@comcast.net
Vice-president: Barbara Jones
Secretary: Janet Jackson-Gould
Treasurer: Erika Cowan 24 Bartram Ave, Mt. Holly, NJ 08060 (609-267-1948)
Newsletter editor: Ned Gilmore egilmore@ansp.org
BCNSC web site at: http://oldsquaw.tripod.com/index.html