Atlantic Flyway Review: Region IV

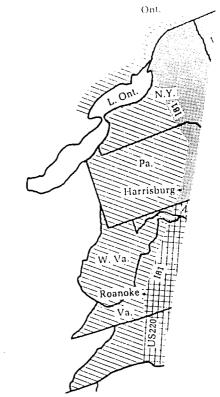
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Twelve stations contributed to the fall 1993 AFR IV report. There were mixed results, with six stations reporting higher numbers than in 1992 (including Braddock Bay with its second best season ever); three stations reporting about average results; and three stations, Presque Isle, Allegheny Front, and Baltimore Woods, experiencing very poor years, poor enough at Baltimore Woods for bander Doug Whitman to throw in the towel midway through the season.

Most stations reported excellent Black-capped Chickadee movement. Some warbler species, Magnolia and Yellow-rumped in particular, made good showings. Winter finch movement in late fall brought Evening Grosbeaks and Pine Siskins to several stations' "top ten" list. Outstanding numbers of Purple Finch (413) and Ruby-throated Hummingbirds (199) were banded at Powdermill. A record 573 White-throated Sparrows (432 in four days!) were banded at Braddock Bay; yet, just 70 miles SSW at Farmersville Station, none were seen or heard!

Noteworthy accomplishments at AFR IV stations were Powdermill's first Greater Yellowlegs, and West Virginia's first state Varied Thrush record banded at Allegheny Front. Hebron continues to be in blue heaven with 268 Indigo Buntings banded this year (999 in the past five years!). The daily point counts done at Kestrel Haven provide a good example of what other stations might be doing. Allegheny Front's visual migrant count provides fascinating incites including the passage of over 6,000 dragonflies in one day!

Re-encounters continue to provide clues to the puzzle of movement of migrants over and around the Great Lakes. The recovery of a HY Downy Woodpecker banded in September 1993 at Presque Isle and recovered 41 days later halfway between Niagara Falls and Long Point, Ontario, is extremely interesting. This bird (moving northeast



in the fall) might have crossed Lake Erie or perhaps skirted the lake and moved along the Niagara River. Braddock Bay banders are also keenly interested in movement of birds in the immediate vicinity of Lake Erie and Lake Ontario, and already have eight re-encounters of birds involving lakeoriented movement.

As we seek to provide better migration monitoring, especially of Neotropical migrants, AFR stations should read guidelines established at some of the larger stations (McCracken et al., 1993; Ralph et al., 1993) and strive to incorporate as many of the strategies as feasible. If you have questions or comments about any of the techniques, please contact me.

McCracken, J.D., D.J.T. Hussell, and E.H. Dunn. 1993. A manual for monitoring bird migration. Long Point Bird Observatory, P.O. Box 160, Port Rowan, Ontario NOE 1M0

Ralph, C.J., G.R. Geupel, P. Pyle, T.E. Martin, and D.F. DeSante. 1993. Handbook of field methods for monitoring landbirds. Pacific SW Res. Sta., P.O. Box 245, Berkeley, CA 94701-0245

	Maitland River, Ont.	Braddock Bay, NY	Baltimore Woods, NY	Beaver Meadows, NY	Spring Hill, NY	Farmersville Sta, NY
Frst Day/Last Day	8/7 - 10/31	7/20 - 11/22	9/4 - 10/16	8/20 - 11/11	8/1 - 11/15	8/18 - 11/16
Days Operated	40	31	3	11	14	48
Nets Used	41*	1-20	8-9	4*	7.5-10.5*	0-4*
Total Net Hrs.	18,603	2374	375	86	874	541
Largest Day	105 (10/30)	240 (10/6)	15 (10/9)	30 (11/9)	66 (9/17)	51 (11/4)
No. Banded '92	473	850	218	163	122	251
No. Banded '93	687	1597	34	157	339	558
No. Species '92	57	58	41	30	34	42
No. Species '93	64	64	15	23	55	41
Birds/100 NH '92	3	46	13	16	**	24
Birds/100 NH '93	4	67	11	42	38	43
Overall % HY '92	**	79	55	44	**	88
Overall % HY '93	**	81	60	40	79	72

** Data not reported.

	Kestrel Haven, NY	Alfred Station, NY	Presque Isle, PA	Hebron, PA	Powdermill, PA	Allegheny Front, WV
Frst Day/Last Day	7/14-11/15	8/6 - 11/15	8/1 - 10/24	8/1 - 11/15	8/1 - 11/29	8/14 - 10/29
Days Operated	86	78	16	66	97	67
Nets Used	1-18	1-9	3-14	1-11	2-40	20-22
Total Net Hrs.	2709	2053	928	707	13,543	7756
Largest Day	59 (9/24)	39 (9/16)	116 (10/16)	111 (8/15& 22)	308 (10/.27)	294 (10/2)
No. Banded '92	1726	594	783	897	5349	3886
No. Banded '93	1986	544	519	1288	5953	3797
No. Species '92	84	62	63	57	104	78
No. Species '93	90	66	62	67	103	81
Birds/100 NH '92	28	19	51	130	34	56
Birds/100 NH '93	73	27	56	139	44	49
Overall % HY '92	: 88	64	80	**	69	**
Overall % HY '93	89	65	70	75	**	**

Plus some traps.

** Data not reported.

Maitland River, Ont.	Braddock Bay, N Y	Baltimore Woods, NY	Beaver Meadows, NY	Spring Hill, NY	Farmersville Station, NY
123 SCJU(1))	573 WTSP (1)	8 WTSP (5)	54 HOFI (1)	40 SOSP (1)	134 AMGO (6)
80 MYWA	175 BCCH	5 BCCH (3)	22 AMGO (3)	34 GRCA (2)	92 HOFI (5)
77 BCCH (3)	110 HETH (2)	4 COYE (2)	21 SCJU (2)	31 BCCH (3)	45 BCCH (2)
51 RCKI (4)	80 SOSP (7)	4 GRCA (1)	8 EVGR	20 WTSP	35 RBGR
38 GCKI (2)	70 YWAR (6)	3 RCKI	7 CEDW	16 COYE	31 COYE (3)
35 SWTH (5)	38 GCKI (4)		6 BCCH (4)	15 RSTO (4)	29 EVGR
26 WIWR	36 RCKI (3)		5 WTSP (8)	14 MAWA	24 BLJA
17 OVEN	34 MYWA		5 PISI	11 REVI (7)	22 MAWA (8)
15 ATSP	34 COYE (10)		4 SOSP (6)	10 AMGO (10)	14 GRCA (9)
14 MAWA	33 GRCA (8)		4 DOWO	9 BLPW	13 SOSP (7)
	33 REVI				

Kestrel Haven, NY	Alfred Station, N Y	Presque Isle, PA	Hebron, PA	Powdermill, PA	Allegheny Front WV
452 SOSP (1)	115 SCJU (1)	111 GCKI (1)	268 INBU (1)	563 SCJU (1)	576 BLPW (2)
143 GRCA (3)	53 BCCH (5)	60 RCKI (2)	137 SOSP (2)	534 AMGO (2)	439 BTBW (1)
128 COYE (8)	47 SOSP (2)	58 WTSP (3)	96 SCJU (3)	413 PUFI	338 BTNW (6)
96 SCJU (5)	29 MAWA (9)	27 SWTH (5)	66 CSWA (9)	314 SOSP (3)	213 CMWA(4)
93 BCCH	28 RBGR	27 HETH (7)	53 AMGO	299 GRCA	205 SCJU (8)
80 ATSP (10)	20 BLJA (6)	17 SCJU (4)	52 HOFI (5)	267 WTSP (6)	175 SWTH (5)
72 HOFI	20 GCKI (8)	15 HOWR	43 GRCA (8)	261 MYWA (4)	171 GCKI (3)
68 EAPH (7)	17 COYE (10)	15 SOSP (6)	39 COYE (4)	220 RCKI (5)	159 MAWA
66 YWAR (9)	14 RCKI	14 MAWA	32 REVI	199 RTHU	154 COYE (9)
61 AMRO	12 WTSP	13 GRCA (8)	30 PISI	191 COYE (7)	124 TEWA (7)
			30 SCTA		

Oct.-Dec. 1994

Maitland River Bird Observatory	435-0812
Huron County, Ontario, Canada	
John B. Miles	

In 1993, the Maitland Bird Observatory was open for fall banding from 7 August to 31 October. Banding was done on 17 days in August, 12 in September, and 11 in October. A total of 691 birds of 64 species was banded, which is about normal for this station. Banders were John Miles and Steven Miles. Banding demonstrations were done for visiting groups from the Federation of Ontario Naturalists and the Kitchener-Waterloo Field Naturalists Clubs.

Equipment used was consistent to that of previous years with up to 41 mist nets in operation as well as a sparrow trap. The peak banding days were 30 October with 105, 10 October with 81, and 2 October with 51 birds.

The most noteworthy species banded in 1993 were the station's first Palm Warbler in over ten years and a Connecticut Warbler. Spruce budworm-eating species such as Tennessee and Bay-breasted Warblers continued their recent downward trend.

Braddock Bay Bird Observatory 431-0774 Monroe County, New York Elizabeth W. Brooks

The ninth consecutive year of fall banding at Braddock Bay Bird Observatory began on 20 July and ended on 22 November 1993. Banding was done at the Kaiser-Manitou Beach Station by Elizabeth Brooks, Robert McKinney, and Sharon Skelly with help from many volunteers. Banding was done during 2374 net hours on 31 days, resulting in 1597 birds banded representing 64 forms, with a 67 birds/100 net hours ratio.

From one to twenty mist nets were used in a variety of habitats (wet deciduous woods, osier, weedy fields, and hedgerow) in the same locations as in previous years. (Habitat is managed to promote constant effort in an environment of minimum change.)

The station's peak day was 6 October with 240 birds banded; but the period from 5 to 8 October was outstanding, with a record 279 birds/100 net

hours capture rate on 8 October. This year was the station's second best season; only 1987 was better, and in that year we had 21 more days of coverage. Record high counts were recorded for 11 species. Noteworthy captures were the station's first fall Barn Swallow and Yellow-breasted Chat, another intergrade flicker, and two White-throated Sparrows with orange lores. There was a good Black-capped Chickadee flight. Our earlier startup date is enabling us to improve our monitoring of warblers.

There were 151 repeats and 14 returns, including a Traill's Flycatcher in its sixth year and a chickadee in its fifth year.

On the negative side, neighborhood dogs and deer continue to be a problem resulting in a number of badly torn nets. Despite our earlier start-up, warbler numbers were down and kinglets made a poor showing. There was a massive winter finch movement along the lake shore in late October and early November, but we were unable to lure any of them into our nets.

The following individuals provided much appreciated assistance: Joan Dodge, Jim and Pat Gillette, Brian Mongi, Tom Muller, Dick O'Hara, Eldon Remy, and Jeanne Skelly. We are grateful for grants from the Genesee Ornithological Society, the Federation of New York State Bird Clubs, and the Rochester Birding Association. Special thanks go to Bill and June Kaiser for permission to band on their land.

Baltimore Woods

425-0761

Onondaga County, New York Douglas Whitman

This was the seventh year of bird banding at Baltimore Woods, located at the Center for Nature Education near Marcellus. Banding was done by Douglas Whitman with the assistance of Cleon Williams. The BBL-approved banding projects are public conservation education and monitoring breeding bird populations at the wildlife preserve. The MAPS project was undertaken this year.

Due to a general lack of birds at Baltimore Woods in 1993, combined with considerable foul weather, little time was spent banding. In three days, only 34 fall migrants of 15 species were banded. The "big day" was on 9 October with just 15 birds.

Reasons for the lack of birds here remain unknown, since there have been no significant changes in habitat, public activity, predators, etc. Perhaps 1993 was just an "off year" at this location.

During the fall migration banding period, 32 visitors observed birds close up, asked questions, and learned about interdependence in nature (humankind included) through banding.

Beaver Meadow Audubon Center 424-0782 Wyoming County, New York David Junkin

The banding station at Beaver Meadow Audubon Center was operated only on eleven days--from 20 August to 11 November, 1993. The banders are volunteers at the Center and have other duties such as leading group tours, hosting the Visitor Center, etc. Banding demonstrations for school and college groups were conducted on most of the banding days. Demonstrations included seeing birds in the hand, up close: feeling the heartbeat, seeing the hidden ears, and learning about behavior in the hand and on release.

Taddy Dann, Joyce Souter and Tom Greg assisted David Junkin in banding during this fifteenth year of operation. Seed-baited traps were used for most of the banding, bringing in the large numbers of House Finches and goldfinches.

Spring Hill Wildlife Sanctuary423-0772Steuben County, New YorkRobert G. McKinney

This was the second year of AFR-reporting for this hilltop banding station with operation from 1 August through 15 November. This station is at an elevation of 2000 feet on a north-facing slope with open fields, brushy areas, and woodlots which are being managed to stay at that stage of plant succession. Since the station is over 50 miles from my home, banding time was limited to 14 days through the season with 339 birds of 55 species banded, using seven to 10.5 nets and one fourcell Potter trap. The first three banding sessions were also MAPS banding sessions. Farmersville Station Cattaraugus County, New York Donald F. Clark

This is the 25th year of reporting for AFR IV. It was a milder fall than last year but, on Halloween night and the next day, we had eleven inches of snow, the most snow ever in October in this area. There were 37 days of rain and six days of snow out of the 90 total possible days.

422-0782

I banded on 48 days between 18 August and 16 November, 1993, banding 558 new birds plus capturing 160 repeats and 30 returns. Traps located near our home caught 514 birds. A total of 234 birds were netted in four mist nets in a net lane that has been used for the entire 25 years, producing a capture rate of 43 birds/100 net hours.

The number and variety of warblers improved this year over the past decade. Most migrated through the area during August. Next year, I plan to begin banding on 1 August rather than waiting until near the middle of the month. Thirty-five Rose-breasted Grosbeaks were caught--the highest total in 25 years. I did not see a single Yellow-rumped Warbler. The only thrush caught in the entire fall period was one Veery. Wood Thrush and Red-eyed Vireos that normally nest on the refuge were few and far between this summer. There was a poor sparrow migration--no White-throated Sparrows were seen or caught. After the Halloween snowstorm, we did see a few American Tree Sparrows, a White-crowned Sparrow (later caught) and a Fox Sparrow. After being absent for a number of years, the Evening Grosbeaks returned in numbers. Although relatively scarce last year, House Finches came back in sizeable flocks. A beautiful HY-F Cooper's Hawk was caught on 9 September.

There were no fall banded recoveries or foreign retraps. Of the 30 returns, one Blue Jay was at least six years old, two American Goldfinches were four years old, and one Black-capped Chickadee was seven years old, and another was in its fifth year.

Each day we have between 50 and 150 Canada Geese come in to our ponds. In 1991, a few neckbanded geese came during the latter part of November and December. In 1992, they arrived in September, October and early November. In 1993, they arrived in August and early September. Two geese first seen in 1991 have returned in both 1992 and 1993.

422-0764

Kestrel Haven	
Schuyler County, New York	
John and Sue Gregoire	

For the second consecutive year, we have witnessed a long-steady migration that begins in mid-July with the dispersal/departure of locally breeding Tree Swallows and Bobolinks and ends in mid-November with the arrival of wintering sparrow and finch species. July operations were limited to dawn hours because of the heat, and November work was much curtailed by high winds. The intervening months were rich in both species diversity and total numbers of migrants, making this the most lucrative season the station has experienced. We also experienced a Halloween "trick"--15 inches of heavy, wet snow.

Eighteen nets were deployed in sets of six in field, hedgerow, and brushlot as described in previous years. A fourth set in upland woods was removed early in the season because of both distance and the abundance of birds at the closer locations. On average, we operated seven nets at any given time. We opened on every possible day while limiting netting to the most productive early morning hours. Night operations were not attempted this year. The result was a station record 90 species banded in 86 days or 387 hours (2709 net hours). We banded 1986 individuals; and an additional 225 hummingbirds, House Sparrows, and starlings were captured and released unbanded. These and repeats of banded birds, plus a fantastic 102 returns of birds banded in the previous year, yielded a total of 3032 birds handled. Our capture rate was 73/100 net hours for newly banded birds and 112/ 100 net hours overall.

We have always supplemented our banding with daily point counts of species present at the station during migration. This year, we added periodic point counts by members of the Cayuga Bird Club done at lower altitudes in both the Seneca and Cayuga Lake Basins. We will be comparing our timing data with a Cornell graduate student who has been conducting night acoustic surveys of migration and hope to provide some "ground truth" data to his recordings. We experienced higher banding and count days within two days of each northwest frontal passage with particularly good results on 16 and 24 September, 23 October, and 9 November; all days with over 50 banded. On 16 September, we banded 25 species and had 16 warbler species the next day. The richness of this year's migration brought our station total to 105 species banded of 179 seen.

Two Golden-winged Warblers, an Olive-sided Flycatcher, Carolina Wren, Rusty Blackbird, and four Common Redpolls were new species banded this fall to bring our fall cumulative list to 100 species banded. Productivity was good, with an overall hatching year percentage of 88.6. No injuries or abnormalities were noted and observable parasites were very few.

Returns were marvelous. Of the 102 returning birds, many were the grassland species we study and a fairly large number were Neotropical migrants. Age data include: Black-capped Chickadee at eight years; catbirds, a robin, Song Sparrows, and a goldfinch at seven years; a Chestnutsided Warbler and cardinals at six years; Yellow Warblers, Red-winged Blackbirds, and American Tree Sparrows at six years. We also had word from the BBL of a dead recovery of an eight-year-old Cooper's Hawk.

Several species were present in numbers up or down at least 2 SDs over a seven-year mean, and several highs were in Neotropical migrant species. Of the 25 warbler species banded, Yellow Warbler, Common Yellowthroat, Ovenbird, Palm, Nashville, Chestnut-sided, and Yellow-rumped Warblers were in double digits. Particularly good Wood Thrush and Hermit Thrush numbers made up for the poor showing by Gray-cheeked and Swainson's Thrush. Blue Jays were in a constant stream in late September and early October. Chickadees were banded in record numbers and returns in the species went back to the first day of station operations in 1986. Kinglets were in normal numbers, catbirds almost doubled previous years, while Cedar Waxwing lows may be a reflection of the Mountain Ash berry demise due to spring weather conditions. Red-eyed Vireos continued to increase in number, while the spruce budworm

specialist warblers were banded in average numbers. Scarlet Tanager had an excellent year, with eight times the norm banded and many more seen. Orioles were down by 75% from last year, and House Finch were almost absent until late October. We ceased banding before the winter finch invasion became a reality.

Field and Chipping Sparrows continue to be species of grave concern. Both species continue to decline; Field Sparrow in almost exponential numbers.

We were involved in the design and testing of several new mist nets at the station. We also conducted field training in ornithology, mist netting, and banding for a number of Cornell University graduate students. Several talks were given to audiences ranging from middle school classes to professional groups.

We are grateful to IBM, Avinet, Inc., and the Watkins Glen Lions for helping to bring us into the computer age; and to Dave Witman and the Cayuga Bird Club for their support. Some helpers can never be thanked enough and these include Mary Beth Pickett, Sam Sumida, Betty Jo McDonald, Sue Luce, and J.J. O'Malley.

Alfred Station	421-0774
Allegany County, New York	
Elizabeth W. Brooks	

The sixteenth year of fall banding at Alfred began on 6 August and continued until 15 November. During 78 days of banding, from one to nine nets were used. Several nets had to be discontinued due to problems with stray cats, resulting in a 33% decline in net hours from 1992. A total of 544 birds of 66 species was banded during 2053 net hours of operation (26.5 birds/100 net hours).

In general, the 1993 fall migration was slightly better than the previous five years. Birds per 100 net hours were the highest since 1982. If I had been able to keep nets up in the usual pattern, I suspect the total birds banded would have been much higher; but I could not trust several nets unattended with stray cats in the vicinity. There were no really big days. Highest number of birds banded was 39 on 16 September, with 36 banded on 17 September. The only other good days were 28 and 29 October, with 20 birds banded each day.

Black-billed Cuckoo, Brewster's Warbler, and Prairie Warbler were new species for the fall cumulative list, which now stands at 98 forms. Night netting was attempted on a few nights with no birds caught.

There were 219 repeats and 35 returns, including a chickadee in its eighth year and a Chipping Sparrow and House Finch, both in their sixth year. However, the most notable return was an 11-year-old Rose-breasted Grosbeak, banded in September 1983, and never retrapped until this year.

The BBL informed me about one foreign retrap and one foreign recovery. A Purple Finch, in its sixth year, which had been banded in October 1990 in Litchfield, CT, was retrapped here in March 1993. And a junco banded in Alfred on 1 November 1989 was retrapped and released alive at Long Point Bird Observatory on 19 April 1991.

The cat-caused reduction in net hours makes analysis of this season's results difficult. Chestnutsided Warblers and Scarlet Tanagers were banded in record numbers. Warblers improved slightly from 1992 results but are still in overall decline. Thrushes had a very poor showing with Veery missing entirely. Rose-breasted Grosbeaks were up 2 S.D. and junco was up 1 S.D. Brown Creeper, Whitethroated Sparrow, and goldfinch were all down 1 S.D. As in the past several years, variety was good, with 66 species banded, which was the second highest. Twenty-one warbler species were banded but only two (Magnolia and Common Yellowthroat) were represented by more than ten individuals.

Banding demonstrations were given to several area home school students and slide shows on banding were presented to the Allegany County Bird Club, the Alfred Historical Society, and the Federation of New York State Bird Clubs.

Presque Isle State Park Erie, Pennsylvania Ronald F. Leberman

420-0800

This marked our 32nd year of banding birds at Presque Isle State Park in cooperation with Op-

eration Recovery in the earlier years and now the Atlantic Flyway Review.

A below-average total of 519 birds was banded in 928 net hours on 16 days, starting on 1 August and ending on 24 October. We handled 62 species (about normal at this station) and no new species were added to the cumulative station list. All birds were aged, sexed, fat count taken, measured, and released.

Good weather during August and September was followed by a very wet October, resulting in lowerthan-normal numbers of sparrows and kinglets. The food supply was good for the most part, except for the total lack of mosquitos for the first time in many years. A cold front on 9 September was followed by a fair flight of warblers.

There were 55 repeats and three returns. An HY Downy Woodpecker banded here in September 1993 was recovered 40 miles east of Long Point, Ontario, 41 days later.

Banding was done by Ronald Leberman with assistance from Thelma Patton. We thank all those who helped in any way, our visitors, and the park administration office for their support and cooperation over the years.

Hebron	415-0780
Potter County, Pennsylvania	
David W. Hauber	

Banding at Hebron for the fall of 1993 was carried out from 1 August to 15 November in the same location and using the same net lanes as in previous years. More emphasis was put on netting this year and less on the use of traps. Days spent banding were increased. I also had more consistent help in 1993 and was able to set more nets during peak hours, therefore increasing the number of birds netted.

Banding was conducted on 66 days, 1462 birds were handled with 1288 new birds banded of 67 species. There were 38 returns and 136 repeats. New species for the station were Yellow-bellied Sapsucker, Brown-headed Cowbird, Evening Grosbeak, Yellow Warbler, and Brown Creeper. This brings to 82 the number of different species banded during five fall banding seasons. Warbler numbers were up for most species, especially Chestnutsided and Tennessee Warblers. We picked up our first Tennessee Warbler in mid-July and found them repeating through August and September.

Indigo Bunting numbers continue to be up, although we banded only 268 and had eight returns this year compared to 1992 when we banded 298 with ten returns. One of our Indigo Buntings banded in September 1992 was found dead in April 1993 at Larrys River, Nova Scotia.

Many thanks to Kirk Newton, the Gary Witmer family, Arthur Metzger, and Chris Keir for their invaluable assistance during the 1993 fall banding season.

Powdermill Nature Reserve Rector, Pennsylvania Robert C. Leberman Robert S. Mulvihill

400-0791

1993 was the 33rd consecutive year of fall banding at Carnegie Museum's Powdermill Nature Reserve. A total of 5953 birds was banded between 1 August and 29 November, the fourth lowest of the past ten years--but still a statistically average fall. Generally, there were few good "fall outs" of migrating flycatchers, thrushes, vireos, or warblers. Later migrants, like sparrows and some other finches, occurred in better numbers. Daily banding totals exceeded 100 birds on 11 days: the best flight was on 27 October when 308 birds were banded (including 90 juncos). On 14 October, a Greater Yellowlegs flew into a net situated between two small ponds, providing us with a new species for Powdermill's banding list. This net also captured a few other wetland species that are infrequent at upland stations including two Mallards, a Green Heron, two Solitary Sandpipers, and six Belted Kingfishers.

Of 79 species looked at statistically, just six were above the 1983-1992 average: American Goldfinch (with 534 banded) was +3 S.D.; Ruby-throated Hummingbird (199), Blue Jay (29), and Chipping Sparrow (142) were +2 S.D.; and Rose-breasted Grosbeak (105) and Purple Finch (413) were +1 S.D.

On the down side, Gray-cheeked Thrush (with just eight banded) was -2 S.D., and banding totals for these 28 species were -1 S.D.; E. Wood-Pewee (14), Yellow-bellied Flycatcher (29), Acadian Flycatcher (10), Golden-crowned Kinglet (25), Swainson's Thrush (54), Wood Thrush (10), Cedar Waxwing (118), Red-eyed Vireo (79), Philadelphia Vireo (11), Solitary Vireo (14), White-eyed Vireo (6), Nashville Warbler (16), Tennessee Warbler (8), Black-throated Blue Warbler (10), Magnolia Warbler (124), Bay-breasted Warbler (3), Blackpoll Warbler (24), Black-and-white Warbler (8), Northern Waterthrush (17), Connecticut Warbler (5), Mourning Warbler (5), Common Yellowthroat (191), Hooded Warbler (52), Canada Warbler (13), American Redstart (89), Indigo Bunting (50), Scarlet Tanager (12), and Lincoln's Sparrow (23).

We are pleased to acknowledge the following people who, in a variety of ways, contributed to the success of the fall banding program at the Reserve in 1993: Larry Barth, Don Koch, Carroll Labarthe, Bonnie Mulvihill, Marilyn Niedermeier, Kenneth C. Parkes, Barb Rich, Carole Shanahan, Bob Shaw, Mike and Evaleen Watko, and Peggy Wisner.

Allegheny Front	
Migration Observatory	390-0791
Grant County, West Virginia	
George A. Hall	

The 36th year of banding at the Allegheny Front Migration Observatory was another very poor season—almost a duplicate of 1992. The weather was good, almost too good. There were few strong cold fronts and no heavy migration ever developed. The station was in continuous operation from 14 August to 11 October, with nine additional days in October. At least some banding was carried out on 67 days.

A total of only 3797 (third poorest) birds of 81 species was banded with a station effort of 7756 net hours (highest ever), giving a capture ratio of 49 birds/100 net hours (poorest ever). The station has now banded 154,430 birds of 117 species and two hybrids. Two new species and one hybrid were added to the species list. The Yellow-throated Warbler was a not-unexpected addition, and the "Lawrence's Warbler" hybrid is noteworthy. But the most exciting addition was the Varied Thrush which was also the first record for the state.

There was only one pronounced wave of migrants--29 September to 2 October—accompanying the only major cold front. The biggest day was 2 October with 293 captures followed by 29 September with 202. Only eight other days resulted in captures in excess of 100.

The most numerous species was once again the Blackpoll Warbler with 576 bandings, followed by the Black-throated Blue Warbler with 439. Both of these figures were below the 10-year average. Of 33 species for which meaningful analysis could be made, ten were banded in numbers more than 1 S.D. below the 10-year average, while 16 species were at less than 1 S.D. below the average. Only two species, the Black-capped Chickadee, which made a widespread influx southward this fall, and the Least Flycatcher, were banded in numbers more than 1 S.D. above the ten-year average.

The total of 2457 warblers banded was a decline of 49% from the ten-year average, while the total of 2769 Neotropical migrants also showed a decline of 49%. These figures are somewhat better than in 1992, but the ten-year average is also declining as more and more poor years are added in.

Last year, some concern was expressed about the decline of the Tennessee Warbler. The decline of this species continued as the 124 banded (record low) gave a decline of 85% from the average. This year, the Cape May Warbler (66% decline) and the Bay-breasted Warbler (87%) also were handled in record low numbers. The populations of these three species, the so-called "spruce budworm specialists," vary over wide ranges depending on the infestation of the insect pest. One possible explanation for the precipitous decline of these species would be that the budworm infestation has subsided in the region that supplies the migrants at this station.

The only species banded in above-average numbers beside the Black-capped Chickadee were the Red-breasted Nuthatch, which is also making a southward dispersal, and the Brown Creeper. During the year, we had reports of three birds banded at this station being recovered elsewhere: a Blue Jay recovered at Leesburg, Alabama; a junco recovered at Durham, North Carolina; and a Black-throated Blue Warbler which nested at Dartmouth College's Hubbard Brook Forest study area in New Hampshire. In addition, a Blackpoll Warbler banded in Ottawa County, Ohio, on 11 September was netted here 21 days later.

The visual migrant counts were continued in 1993. A total of 388 Ruby-throated Hummingbirds (same as 1992) were counted; 6098 Blue Jays (up from last year but 39% below the three-year average); 3424 American Goldfinches (43% above average); and 1811 Monarch Butterflies (compared with only 51 last year). Observers also witnessed a tremendous movement of an estimated 6000 dragonflies passing by on 30 August. On three days in late October, 165 Evening Grosbeaks, 135 Pine Siskins, and 140 Purple Finches were counted flying over.

During the season, 1678 people signed the visitor book. They came from 19 states, the District of Columbia, and Ontario, Belize, Puerto Rico, Germany, Switzerland, Holland, Iraq, and Russia. Our educational function continued as several elementary and high school classes visited the station.

Banders who participated this year were Lynn Barnhart, Walter Fye, Sue Heselton, Joan Pattison, Janet Shaffer, Judy Ward, Leon Wilson, Charles Ziegenfus, and station co-leaders Ralph Bell and George Hall. LeJay Graffious was responsible for the banding shelter, and Genevieve and John Findley were in charge of the net lanes. Ivarean Pierce (who also headed up the Blue Jay-humminobird count). Ken Heselton, and Patrick Hurley were present for extended periods of time. An additional 58 people aided in tending nets, carrying cages, keeping records, and in many other ways for which we are grateful. We also thank the personnel of the Monongahela National Forest, Supervisor Jim Page, District Ranger Nancy Feakes, Recreation Specialist Jill Shoemaker, and others of the Potomac District Ranger Station for their cooperation and support. Thanks also to Walt Lesser of the D.N.R. for the use of the Laneville cabin for housing and storage of the shelter. The Brooks Bird Club supplied some financial support.

