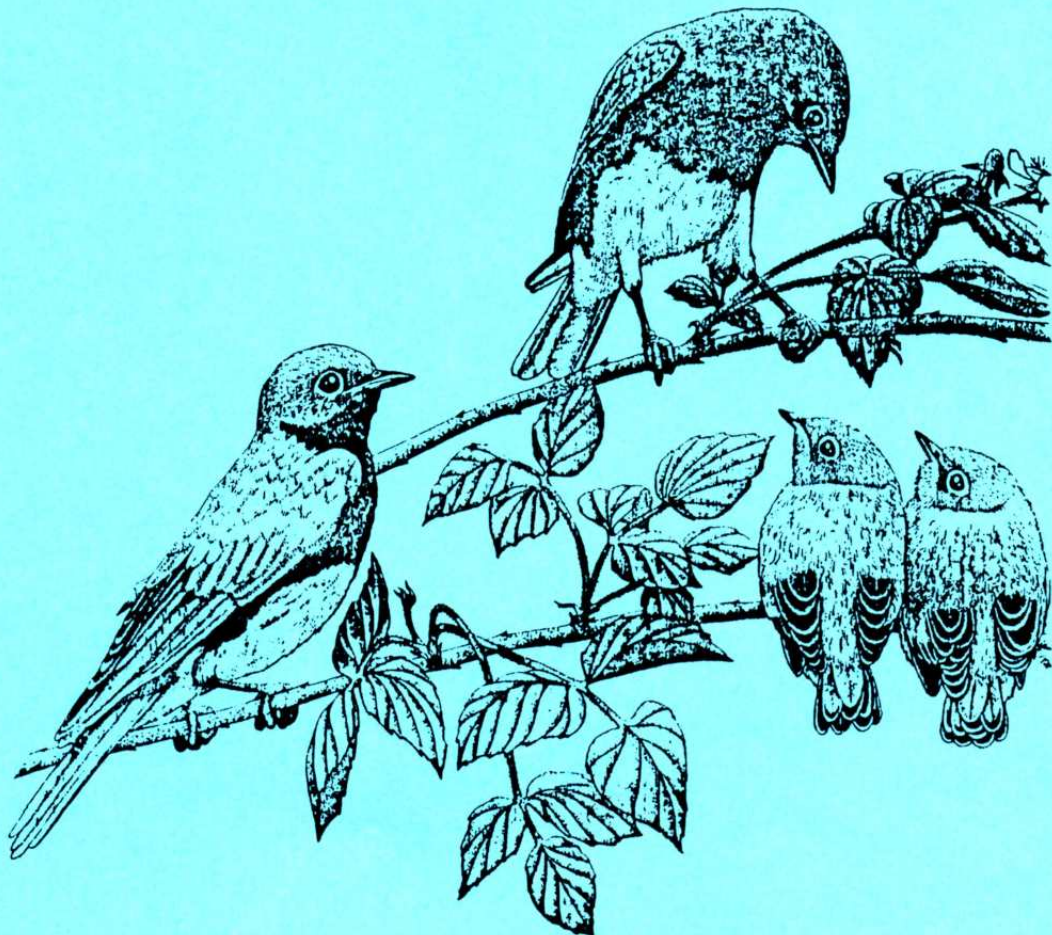


Iowa

Bluebird Directory

1990

Bluebird Recovery Program



IOWA DEPARTMENT OF NATURAL RESOURCES

It has been another tremendous year for bluebirds and bluebirders in Iowa! This directory is somewhat of a "who's who" among Iowa bluebirders, and on behalf of the Iowa Department of Natural Resources I want to thank everyone who sent reports in and is helping to bring back the bluebird in Iowa. Special thanks are due to Jaclyn Hill for compiling the information from the reports and typing the directory, to the Big Bluestem Audubon Chapter in Ames for help in mailing the directories, and especially to the Minnesota Bluebird Recovery Program for a generous donation allowing the directory to be sent to everyone who sent in a report. Now that you all have a directory, I urge you to use it to keep in contact with other bluebirders in your area so you can both offer and seek advice and assistance.

Eventually our Iowa DNR Nongame Program would like to be able to print and mail the bluebird directory each year. If our level of funding improves, perhaps we will be able to do that in the future.

I have enjoyed working with many people on the bluebird conference the last two years, and their support is much appreciated. If anyone would like to offer suggestions for the program for the next conference, either volunteering themselves or someone else, please let Rita Efta or me know.

Details on the next conference will be in an upcoming issue of Nongame News, as will the nest record forms for 1991. If you are not already on the mailing list for the Iowa DNR's Nongame News, you can request being added to it by writing to: Beth Chipp, Nongame News, Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa, 50319-0023. The publication is free and comes out four times a year.

Our nongame poster for 1991 features a beautiful male bluebird, with the photo taken by Carl Kurtz of St. Anthony. The posters should be available by early January. You can get one from your tax preparer when you donate to the Nongame Program through the Fish and Wildlife Protection Fund ("Chickadee Checkoff") or by sending at least a \$5 donation to the Iowa DNR's Nongame Program at: Wildlife Research Station, Route 1, Ledges Road, Boone, Iowa, 50036.

Thanks again for your outstanding work for the bluebirds this past year!

James L. Hansen
Nongame Wildlife Biologist
Iowa Department of Natural Resources
1203 North Shore Drive
Clear Lake, Iowa 50428
Phone: 515/357-3517

Another bluebird season has ended and the birds have headed south to spend the winter. From all indications this has been a very successful season as you can see by looking through the directory. Jacquelyn has been busier than a bee getting all the compiling done. We are fortunate to have young energetic people like her volunteer to do all this work.

First of all I want to thank everyone who sent in their report forms. This year we far surpassed last year. In 1989 we had 40 counties who didn't participate. I'm sure some of these had bluebird trails but did not report. Please help spread the word.

A directory does serve its purpose. Trends in bluebird recovery are clearly reflected here, we know where boxes are located and who they belong to. Trail monitors are benefiting from past experiences, experimentation and suggestions from older bluebirders.

Next I want to thank everyone who attended our annual conference at Manchester on August 25 and especially the ones who helped with the program and Harold Luers and Al Yuska who hosted the event. They recruited people who all helped make things run smoothly, they did a great job.

Our attendance at the conference was good-78 people and I felt a good program was presented. For those who were unable to attend I will give a run down of the agenda. The regional reporting pretty well covered all areas of the state to give an overall picture. They were given by the following: Larry Wunder, Harlan; Zola Beckman, Lake City; Gerry Brown, Ottumwa; Jean Hines, Monticello; Jacquelyn Hill, Ellsworth; Harold Luers, Manchester; then four reports were read from bluebirders who were not able to attend; Dean Mosman, Elkart; Milton Barron, Mason City; Donna Day, Humboldt; Don Poggensee, Ida Grove. A bluebird film was presented early in the program and another "Bluebird Nesting Biology and Nestling foods" slide program later in the day by Craig Hensley of St Paul Minn. Mary Ellen Vetter of Minnesota, gave an update on their program which was very impressive. The talk on deer ticks and Lyme disease by Dr. Nixon Wilson from UNI gave us food for thought. We need to be cautious out there on our trails. A report was given on the Osborne Nature Center which many people visited while in the area, especially the ones who came the day before or stayed over the week-end. Our DNR people gave us tips on trail management and use of different boxes. Jim Hansen was our Master of ceremonies and gave an update on the Nongame programs. If you would like to sponsor the conference in your area please let us know.

Am happy to report our bluebird program is now affiliated with the Audubon Society at Ames. Jacquelyn Hill who lives near there has made all the arrangements, has met with their board and we can get help mailing the directory. We still need your donations to keep our program going and hope we can get enough each year so everyone who sends in a report will also get a directory. If you have any ideas or suggestions we can use for our conference or on our trails let us know. We need input.

I'd like to mention here for those who are interested, Cornell Univ of Ithaca N.Y. is interested in having people participate in the North American Nest record card program. You can get the cards by writing to: Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca N.Y. 14850 607-254-2414. Tell them how many cards you would like and they will send them free. After you fill them out send them back to them. They will use this information for their records and is also available for anyone who wants to do research such as teachers, naturalists, ornithologists etc. That's how we get some of our statistics on bluebirds. Some of these are included in this years directory by Greg Butcher. They will accept records on any bird nestings we find, and have kept records on, not only bluebirds.

Many people have mentioned about blowflies in bluebird nests. The past 2 years I have participated in a research on blowflies and the parasitic wasp, the jewel-wasp. This research was headed by Professor Jack Werren at the Univ of Rochester in Rochester N.Y. department of Biology. Nests were collected and mailed within a few days of collection, sent 2nd day air UPS, No insecticide could be used. The jewel-wasp is thus given a chance to control blowfly larva. If insecticide is used it is more detrimental to the jewelwasp than the blow fly. On my trail of 100 boxes I had no infestation in 1989 and only one box had one blow fly, also one jewelwasp in 1989. The map of the U.S. sent to me showed more concentrations of blow fly in Minnesota, the eastern states and the extreme west central states. Taken from these records there is no need to use any insecticides so the jewelwasp has a chance to control the blowfly.

We hope you are all using predator protection of some kind on your trail to increase your success. Aluminum sheets wrapped around a post or coiled around a free standing post does a good job for climbers and a sparrow trap does a good job in controlling sparrow, it does take a little time to go back and check the trap or just wait a while and you have caught them. I have sparrow traps available to fit front opening boxes which pivot at the bottom so the front of the box drops down and the trap then sets in its place. The bluebird book "Bluebirds in the upper Midwest" is also available for 9.50 plus 1.50 for shipping. This book covers every thing one needs to know to start or maintain a trail.

Monitoring is the key to success, throw out the undesirables so bluebirds have a chance.

Rita E.Efta
RR 1 Box 39
Auburn, IA 51433

DOOR PRIZE DONATORS FOR THE 1990 CONFERENCE

Department of Natural Resources
 Rita Efta
 Jacquelyn Hill
 Harold Luers
 Minnesota Bluebird Recovery Program
 Don Poggensee
 Sac County Conservation
 Shirley Schirck
 Al Yuska

DONATORS ALLOWING THE DIRECTORY TO BE SENT TO EVERYONE

Minnesota Bluebird Recovery Program	
Ellsworth Womens Study Club	
Milton & Irma Licht	Maridel Jackson
Al Yuska	Galen Jones
Francis & Vera Moore	Lawrence & Doris Kadolph
John Hill	Marilynn Keller
Jean DeGeest	Donna Lanus
Zola Beckman	Donna Larson
Sue Behrns	Sharon Laub
Betty Bennett	Harold Luers
Alfred Berger	Vern McCormick
Dick Bierman	Donna Meskimen
Barbara Boyle	Jerry Michaelson
Gerry Brown	Jack & Margerite Middleton
C.C. Carl	Francis & Vera Moore
Don Caspers	Marie Morton
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Robert Erickson	R.D. Steffen
Mary Ford	George & Erma Studley
Dr. R.E. Gamble	James & Barb Sylvester
Dick Hake	Lynn Tavern
Pat Heidenrieck	Rick Ullom
Inez M. Heinze	Eva Wiedemeyer
Jacquelyn Hill	Anne Wolf
	Dean & Donna Wolfe
	Miriam Woods

Dear Birders,

I'm taking the time to type this directory, because there is a real need to educate. So many first timers attended the conference in Manchester. Thank-you so much for attending and a special thank-you to Al Yuska and Harold Luers. It is this type of cooperation that will make the program work. Once you help that first pair of bluebirds or martins, etc. hold their box against all predators, it is no longer a chore to monitor your houses at least once a week. I find it a real joy to hear them say thank-you in their own way.

Thank-you for trusting me with your reports and helping with the printing and mailing costs. I can not do this by myself and am so thrilled with the response. Please spread the word for 1991, we need reports and donations to help all the new birders. We would appreciate hearing from you that monitor martin houses too. Some of you reported the numbers being down by two-thirds. We need your help to bring those numbers back up.

In the Bluebird News from Minn. Mary Ellen Vetter had a memo... In part... "The Audubon Chapter of Minneapolis established the Bluebird Recovery Program 12 years ago to help Minnesotans help bluebirds. Now over half of our 4000 members are from 47 other states and Canada! We volunteers who operate the program are engulfed in bluebird business on a daily basis and are forever struggling just to catch up. Our kitchen tables are groaning! It is time for a change."

I made a statement at the end of the day, August 24, in Manchester, "My goal is for every bluebirder to receive a directory", it was a dream. When I attended the Minnesota conference, in September, I realized that it might be possible. I was so thankful and appreciated the check from the Bluebird Recovery Program of Minnesota, beyond words. This is seed money, we now have to decide if we want to support ourselves. I agree with Gerry Brown's statement at conference, leave the conference as it has been, with the great work of the DNR and volunteers. We would like to know where you wish the recovery program to go, or what would you like it to accomplish. What are you willing to help with? Is there 4 or 5 of you that would like to meet at my home the second week in November of 1991, to help proof the directory, so it can be mailed before Thanksgiving. I am willing to continue to type the directory and have donations sent in with the report form, as many of you have done.

Totals of the Directory

192 Reports sent in	683 Tree Swallows fledged
4407 Bluebird boxes monitored	189 Black-capped chickadee fledged
1805 Successful broods	153 American kestrel boxes monitored
9997 Blue Bluebird eggs	115 American kestrel fledged
294 White Bluebird eggs	920 Purple Martin compartments monitored
7750 Bluebirds hatched	568 Purple Martins fledged
6997 Bluebirds fledged	

IOWA BLUEBIRD BOX DATA 1986-90

	1986	1987	1988	1989	1990
Reports	99	171	147	158	192
Boxes	2447	4226	3280	3984	4407
Fledged	3614	6228	4577	6674	6997

Jacquelyn Hill

Ellsworth, IA 50075

Greg Butcher
Cornell Laboratory of Ornithology
159 Sapsucker Woods Road
Ithaca NY 14850
607/254-2414

7

DISCOVERIES ABOUT THE BREEDING BIOLOGY OF EASTERN BLUEBIRDS:
THINGS YOU CAN SEE ON YOUR TRAIL

Because of the large number of bluebird boxes put up and followed by trail operators, the Eastern Bluebird is one of the best studied birds in North America. However, not all the information learned by trail operators has been published. At the Cornell Laboratory of Ornithology, we have sponsored the Nest Record Program since 1965. Filling out a nest record card for each nesting attempt allows trail operators to let us know what has happened to their bluebirds.

Our studies have concentrated on determining clutch size (the number of eggs incubated at one time by the female), clutch completion date (the date the last egg in the clutch was laid), incubation period (the date from laying of the last egg to hatching of the last egg), and nestling period (the date from the hatching of the first young to the fledging of the first young).

We have found that almost all Eastern Bluebirds lay four or five eggs and that they are more likely to lay five eggs early in the season and four eggs late in the season.

We use clutch completion date (defined above) to estimate the nesting season. In a preliminary analysis, we looked at more than 300 Iowa bluebird cards (we have a lot more than that now) and estimated that 95% of the clutches were completed in Iowa between April 20 and July 14. Bluebirds have a very long nesting season compared to most birds. An individual female may lay as many as three clutches in a single season.

The most frequent incubation period (defined above) is 13 days, but we have evidence that incubation periods can be as short as 10 days (mostly in Florida) and as long as 19 days.

Hatching in bluebirds usually occurs all on the same day, but we aren't sure of this. We'd love to hear from any bluebirders who have carefully watched the hatching process. It would be fun to know how many hours it takes for all the birds to hatch, even if they do all hatch on the same day.

Nestling periods are even more variable than incubation periods, partly because bluebirds (like most songbirds) will fledge prematurely if disturbed near the end of the nestling period. The most common nestling period is 17 days, but we have nestling periods that vary from 13 to 22 days.

We studied variation in the incubation period and decided that temperature must have a big effect on the incubation period because incubation periods were longer at northern latitudes and longer earlier in the breeding season.

What You Should Look For

What information do we need from bluebirders to calculate these things (or what information do you need if you want to calculate them yourself? It is very important, if possible, to visit the nest box on the following days: (1) during the egg-laying period when there is at least one egg in the nest but not a full clutch (be sure to accurately count the number of eggs), (2) about a week later when there is a full clutch (again, we need an accurate count of the number of eggs), (3) on hatching day (determined by pipping eggs, wet young, or at least one young in the nest and at least one egg that later hatches), (4) about a week later to count accurately the number of young, and (5) on fledging day (be sure to watch from a distance so as not to cause premature fledging). You should use our average numbers for incubation periods and nestling periods to predict when hatching and fledging will occur.

Unexpected Nesting Behavior in Bluebirds

Other studies have been done by scientists on bluebirds because of the ease of studying a bird that nests in a nest box. Patricia Adair Gowaty studies bluebirds in South Carolina and has discovered some amazing things! We have always assumed that bluebirds were the picture of perfect monogamy, with the male and female working in perfect harmony to raise their young. Not so!

First of all, many female bluebirds will mate with more than one male while laying her eggs, resulting in eggs and nestlings in the same nest with the same mother but different fathers! This is called extra-pair fertilization.

Secondly, females will often lay their eggs in the nest of another female, resulting in eggs and nestlings in the same nest with different mothers and in females incubating eggs and feeding nestlings that are not their own! This is called conspecific (same species) nest parasitism, or egg dumping.

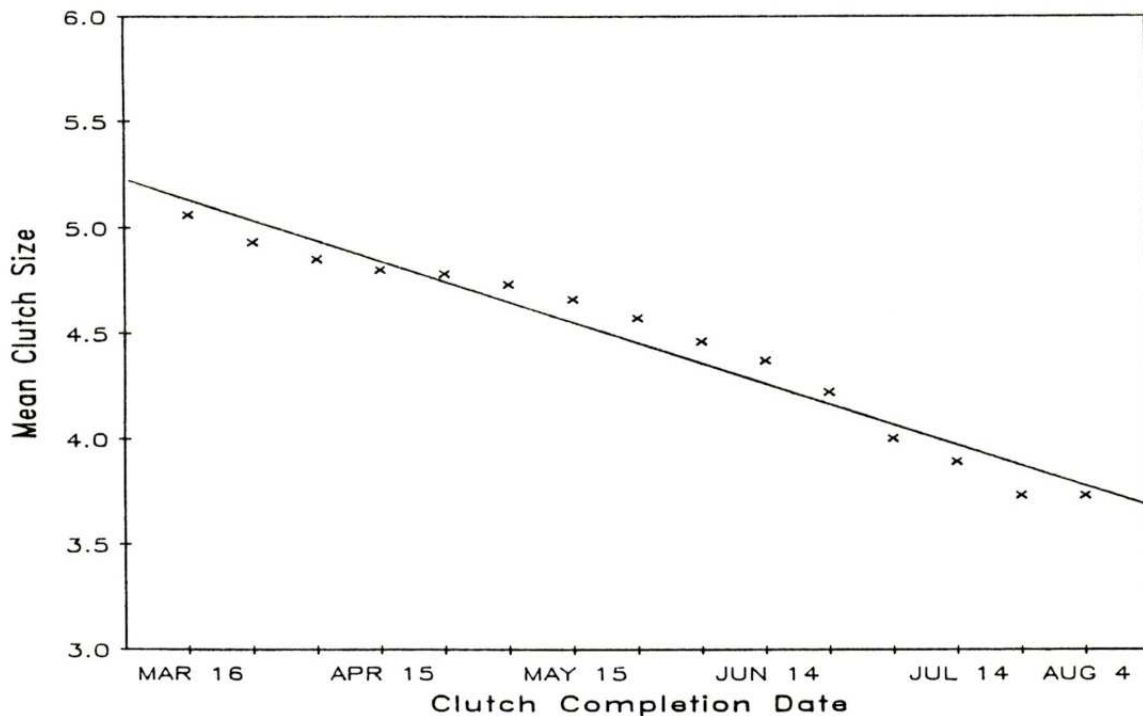
What You Should Look For

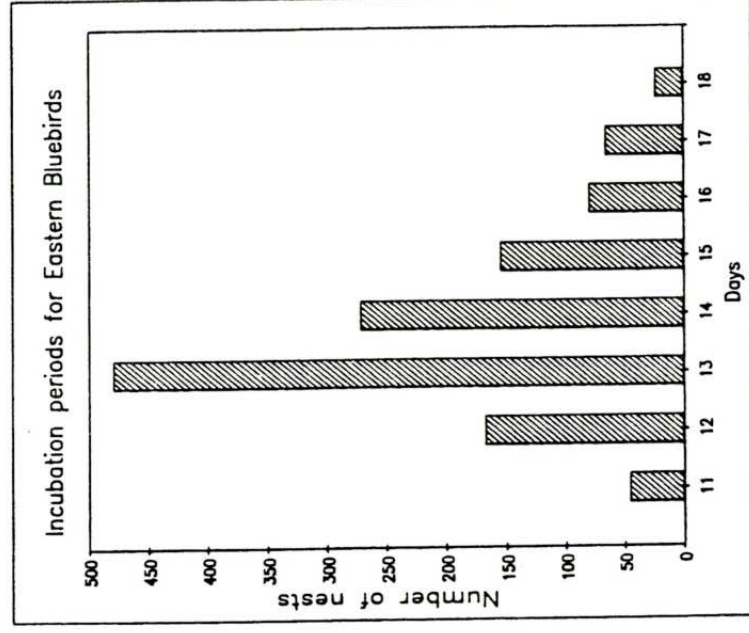
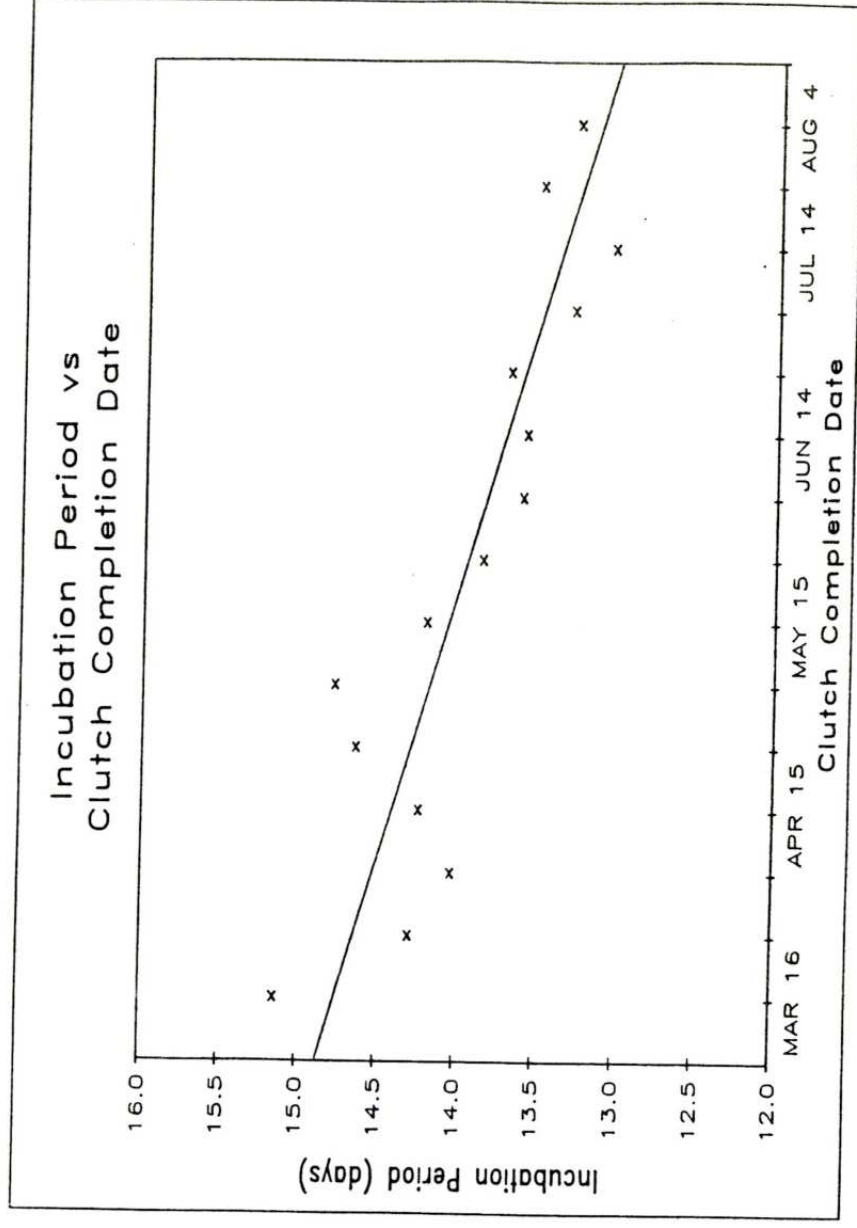
How can you determine if these things are happening on your route? One sign might be bluebird fights right at the time of egg laying: males might fight over access to a female, or females might fight to keep one female out of the nestbox of another. In addition, males may force themselves upon females. Incidentally, all these behaviors can be found in House Sparrows, Starlings, and other species as well as bluebirds.

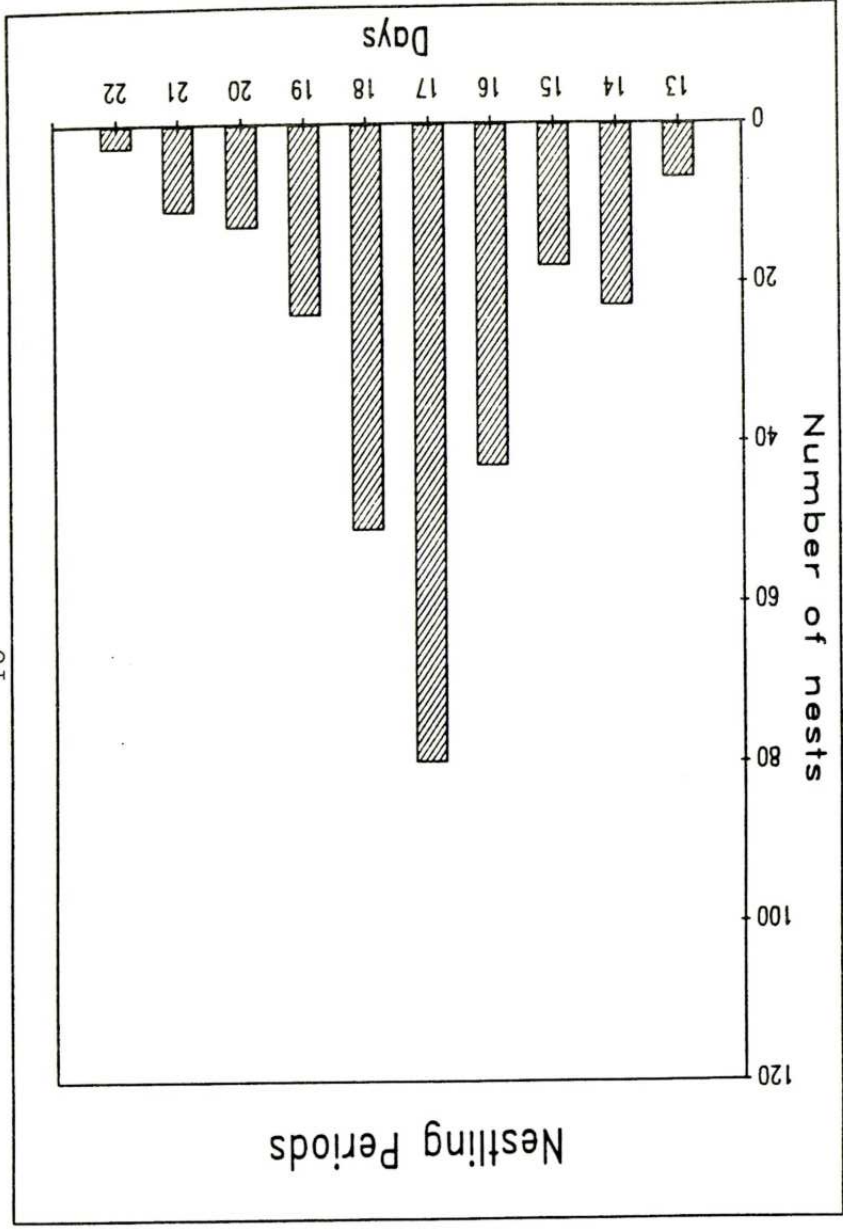
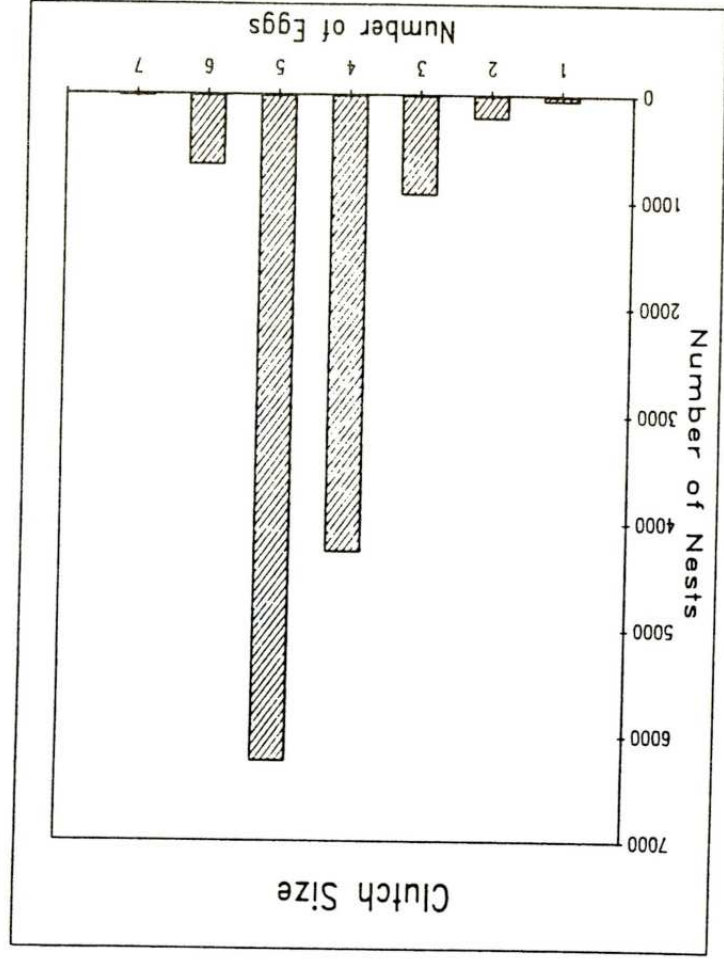
If egg dumping has occurred, you might see more than one egg appear on a single day, or you might see an extra large clutch size (however, some egg dumpers remove eggs before dumping). Usually, the eggs of a single female are the same shape; therefore, if one or two of the eggs in a nest look a lot different from the other eggs in the nest, the different eggs may have been dumped by another female.

Bluebird breeding biology is a lot more interesting than we ever expected. Following your bluebird trail, you can document the above occurrences, plus you may learn something new that has never been reported!

Clutch Size vs
Clutch Completion Date







NAMES ADDRESS CITY & ZIP	COUNTY PHONE	11		EABL #Hatched #Pledged	TRES #Hatched #Pledged	BCCH #Hatched #Pledged	AMKE #Houses #Pledged	PUMA #Compmt #Fledge
		EABL #Houses #Broods	EABL #Bl Eggs #Wh Eggs					
CLARENCE ALDRICH 220 W WALNUT SIGOURNEY IA 52591	Keokuk 515-622-3251	55 24	100	90 85	0	6 6	0	0
MILT BARRON 15411 300TH COURT MASON CITY IA 50401	Cerro Gordo 515-423-7072	330 135	1010 16	681 667	30	36 36	0	0
TRUDY BARRY ROUTE 2 BOX 1 PISGAH IA 51564	Harrison 712-456-2559	15 9	52	37 37	0	0	0	0
WAYNE/ANITA BEAL ROUTE 4 BOX 35 AMES IA 50010	Story 515-292-2699	3	0	0	0	0	0	0
ZOLA BECKMAN ROUTE 1 LAKE CITY IA 51449	Calhoun 712-464-3092	15 6	33	27 27	10 10	0	0	0
MARNEY BEEMER ROUTE 3 BOX 16 CORNING IA 50841	Adams 515-322-4816	33 1	5	5 5	0	8 8	0	0
SUE BEHRNS ROUTE 1 BOX 46-A DELHI IA 52223	Delaware 319-922-2070	5	5	5 0	0	0	0	0
CHALMER/BETTY BENNETT ROUTE 1 BOX 25 PERRY IA 50220-9607	Boone 515-465-2051	15	47	45 37	0	0	0	0
DARLENE BERKLER BOX 104 ELLSWORTH IA 50075	Hamilton 515-836-4629	0	0	0	0	0	0	12 12
YVETTE/RAY BERNER 1995 170TH ST TRAER IA 50675-9305	Tama 319-478-2007	8 1	5	5 5	0	0	1	0
DICK BIERMAN 901 HARRIS CHEROKEE IA 51012	Cherokee 712-225-5552	68 51	186	171 154	68 61	6 6	11 23	0
MICHAEL BOCK ROUTE 4 BOX 46B MAQUOKETA IA 52060	Jackson 319-652-3046	6 1	4	4 4	0	0	0	0
MRS LEROY BOETTGER ROUTE 1 #157 LOWDEN IA 52255	Cedar 319-944-5569	2 1	4	0	0	0	0	0
MRS RUTH BONFIGLIO 711-12TH AVE CORALVILLE IA 52241	Johnson 319-351-6488	0	0	0	0	0	0	12

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL	EABL	EABL	TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Fledged	#Hatched #Fledged	#Hatched #Fledged	#Houses #Fledged	#Compmt #Fledge
TOM BORDEN BOX 272 SANBORN IA 51248	Osceola 712-729-3440	37	0	0	28 28	0	0	0
LAURA BRABY 1111 9TH AVE SW HUMBOLDT IA 50548	Humboldt	1	0	0	0	0	0	yes yes
KIM BRANDT ROUTE 2 ABBE RIDGE MT VERNON IA 52314	Linn 319-895-6787	4 1	0	0	0	0	0	12 0
TIM J BRECKA ROUTE 2 BOX 53 RICHLAND IA 52585	Wapello 319-456-6709	4 0	0	0	0	0	0	0
DICK/SUSAN BREED 1828 REED AVE MARSHALLTOWN IA 50158	Marshall	13 6	32	26 25	0	0	0	0
MARION BREWER ROUTE 2 BOX 25 CHEROKEE IA 51012	Cherokee 712-225-3350	90 68	338 10	317 272	110 90	0	0	0
BETH L BROWN BOX 217 OSCEOLA IA 50213	Clarke 515-342-2783	23 11	44	38 38	0	0	24	0
BETH L BROWN BOX 217 OSCEOLA IA 50213	Madison 515-342-2783	2 2	8	8 8	0	0	0	0
BETH L BROWN BOX 217 OSCEOLA IA 50213	Union 515-342-2783	8 8	35	35 35	0	0	0	0
GERRY BROWN ROUTE 2 BOX 235 OTTUMWA IA 52501	Wapello 515-682-4266	126 70	286 8	233 194	4 4	0	0	0
BARB BUSENBARRICK 318 N PINE CRESTON IA 50801	Union 515-782-7111	20 12	34 3	28 19	5 5	0	5 5	0
C C CARL 801 W ADAMS CRESTON IA 50801	Union 515-782-7554	75 63	236 22	265 253	0	7 7	0	0
M/M JIM CARSTENSEN ROUTE 3 BOX 249 BELLEVUE IA 52031	Jackson 319-689-6258	4 1	3	3 3	0	0	0	0
M/M DAVID CHASE ROUTE 2 BOX 195 ATLANTIC IA 50022	Cass 712-243-2444	2 1	4	4 4	0	0	0	0

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL	13 EABL	EABL	TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Fledged	#Hatched #Fledged	#Hatched #Fledged	#Houses #Fledged	#Compmt #Fledge
JOY CHEISTENSEN 1708 LAKE NOKOMIS DR HUMBOLDT IA 50548	Humboldt	1	0	0	0	0	0	yes
CHICKASAW CO CONS BD ROUTE 2 NEW HAMPTON IA 50659	Chickasaw 515-394-4714	27 15	11	3 3	0	0	2	0
CHRIS CHRISTENSEN 3 BERKHIMER DR HUMBOLDT IA 50548	Humboldt 515-332-2066	2 1	0	0	0	0	0	0
DARRELL CHRISTENSEN ROUTE 4 BEDFORD IA 50833	Taylor 712-523-2911	2	0	0	0	0	0	8
JON/STELLA CLANCY 407 DECKOR STREET JEWELL IA 50130	Story 515-827-5675	4 3	21	7 7	0	0	0	0
JACQUELYN COGGINS ROUTE 2 BOX 107 HOPKINTON IA 52237	Delaware 319-926-2628	16 5	38	30 25	0	5	0	0
OLIVIA CORNELIUS ROUTE 3 BOX 216 MAQUOKETA IA 52060	Jackson 319-672-3462	6 4	28	24 19	4	0	0	0
DOROTHY CORNETT PLEASANTVIEW #6B CENTERVILLE IA 52544	Appanoose 515-856-3010	7 6	30	30 27	0	0	0	0
BERNADINE COZAD 102 W 3RD AVE INDIANOLA IA 50125	Clarke 515-961-3935	3 1	4	4 4	0	0	0	0
LESLIE CROUTHAMEL 304 E CURVE DRIVE WEBSTER CITY IA 50595	Hamilton 515-832-5571	2 2	9	4 4	0	0	0	0
GARTH CULBERTSON 16798 S MOUND RD SHERRILL IA 52073	Dubuque 319-552-1329	50 37	138 7	118 113	8 8	19 19	3 3	12 5
SHIRLEY DAIB 205 N CIRCLE DR GRIMES IA 50111	Polk 515-986-3602	7 1	3	2 2	0	0	0	0
TONY DAVIS 320 E 21 MADRID IA 50156	Boone 515-795-2947	40 33	172 17	144 126	16 15	6 4	7	0
DONNA DAY 505 5TH ST N HUMBOLDT IA 50548	Wright 515-332-3398	30 14	43	31 17	18 18	0	0	0

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL		EABL #Hatched #Fledged	TRES #Hatched #Fledged	BCCH #Hatched #Fledged	AMKE #Houses #Fledged	PUMA #Compmt #Fledge
		#Houses #Broods	14 #Bl Eggs #Wh Eggs					
JEAN/GLEN DEGEEST ROUTE 3 BOX 247 OSKALOOSA IA 52577	Mahaska 515-673-3553	15 1	20	14 6	0	0	0	0
DAVE DICKEY 407 E 4TH PACKWOOD IA 52580	Jefferson 319-695-3516	1 1	3	3 3	0	0	0	0
THOMAS L DOGGETT ROUTE 1 BOX 90 NEW LONDON IA 52645	Henry 319-367-5196	25 19	113	92 72	0	3	0	20
PAT DONOVAN 739 WEBSTER ST WEBSTER CITY IA 50595	Hamilton 515-832-2668	9 2	12	8 8	4 4	0	0	0
DENNIS A DUKE BOX 224 PANORA IA 50216	Guthrie 515-755-2649	4 1	5	4 4	0	3	1	0
RUTH DYKSTRA ROUTE 1 BUSSEY IA 50044	Marion 515-944-5200	70 54	360 1	354 354	0	18 18	0	yes
GENE/RUTH EASH 1000 8TH AVE WELLMAN IA 52356	Washington 515-944-5200	27 10	68	56 49	11	0	0	yes
RITA E EFTA ROUTE 1 BOX 39 AUBURN IA 51433	Sac 712-688-2873	100 44	277 11	164 161	42 24	10 10	1	24
BRUCE EHRESMAN ROUTE 4 BOX 249 BOONE IA 50036	Boone 515-688-2873	51 42	190	174 167	0	0	1 7	0
DR JAMES EISELE ROUTE 5 BOX 33 SIOUX CITY IA 51108	Plymouth 712-255-3446	3 1	4	4 3	0	0	0	0
MARCIA ELLER ROUTE 1 BOX 20 HUBBARD IA 50122	Hardin 515-864-3264	15 13	59	54 50	4 4	0	0	0
PAUL/MARY FELSING ROUTE 3 BOX 142 KNOXVILLE IA 50138	Marion 515-628-1495	90 59	477	289 258	0	15	0	0
M/M FRANK FLICKINGER 307 11TH ST SW WAVERLY IA 50677	Brewer 319-352-3196	0	0	0	0	4 4	0	12 2
ALMON C FLIEHLER BOX 444 STRAWBERRY PT IA 52076	Delaware 319-933-2260	19 6	25 4	21 17	0	0	0	0

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL	15 EABL	EABL	TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Fledged	#Hatched #Fledged	#Hatched #Fledged	#Houses #Fledged	#Compmt #Fledge
MARY E FORD 103 N HAYDEN GUTTENBERG IA 52052	Clayton	22	44 5	39 35	10 10	0	10	0
FRANKLIN CO CONS BOX 164 HAMPTON IA 50441	Franklin 515-456-4375	48 7	19	2 0	0	0	0	0
R E GAMBLE BOX 308 GLADBROOK IA 50635	Tama 515-473-2823	62 17	11	56	0	5 4	0	14
ROBERT L GIBB ROUTE 1 BOX 107 AGENCY IA 52530	Wapello 515-937-5720	7 2	9	9 9	0	0	0	0
THOMAS/MARIE GIMER ROUTE 1 BOX 5 RENWICK IA 50577	Wright 515-824-3568	4 1	5	5 5	0	0	0	0
GIRL SCOUT CAMP GAYWOOD ROUTE 1 BOX 256 CLEAR LAKE IA 50428	Cerro Gordo 515-357-2481	8	0	0	3 3	0	0	25
O J "BUD" GODE 918 ESTRON IOWA CITY IA 52246	Iowa	4	0	0	0	0	1	0
RITA GORANSON 115 LAKEVIEW DR MASON CITY IA 50401	Cerro Gordo 515-423-1699	7	0	0	0	0	0	0
L W HAERTHER 3106 ALLEYGHANY DR NE CEDAR RAPIDS IA 52402	Linn 319-364-0479	9 5	20	18 17	0	4 2	0	0
STANLEY/LINA HALE BOX 116 MONMOUTH IA 52309	Jackson 319-673-4991	40 28	150 2	122 102	0	0	0	0
MRS PAY HALL ROUTE 2 BOX 35 GRIMES IA 50111	Dallas 515-986-3380	4 2	8	8 8	0	0	0	0
ERVIN HALVERSON ROUTE 2 BOX 10 DOWS IA 50071	Wright 515-852-4269	60 28	161 5	127 104	0	0	0	0
JUDY HANSEN 3610 SW COURT AVE ANKENY IA 50021	Polk 515-964-2178	3 1			0	0	0	0
RONALD HARMS 318 W GARFIELD LAURENS IA 50554	Pocahontas 712-845-2161	27 1	5	5	0	0	1	0

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL	16 EABL	EABL	TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Fledged	#Hatched #Fledged	#Hatched #Fledged	#Houses #Fledged	#Complt #Fledge
DOUGLAS C HARR 301 1/2 1ST AVE ROCK RAPIDS IA 51246	Lyon	26 8	27	23 19	24 20	0	0	0
DOUGLAS C HARR 301 1/2 1ST AVE ROCK RAPIDS IA 51246	Sioux	34 11	42	30 16	28	0	0	0
HENRY DEAN HARRIS ELLSWORTH IA 50075	Hamilton 515-835-4457	0	0	0	0	0	0	12 9
STEPHANIE HARVES ROUTE 2 BOX 137 DICKENS IA 51333	Clay 712-835-2981	14 7	35	28 17	14	0	0	0
EARL HEATH 807 32ND ST SE CEDAR RAPIDS IA 52403	Jones 319-362-9130	86 25	145	102 86	9 9	0	2	0
M/M LOWELL HEGGEN ROUTE 2 13 RIVER OAKS HUMBOLDT IA 50548	Humboldt	8 4	25	24 18	18 18	0	0	0
PAT HEIDENREICH BOX 296 MARQUETTE IA 52158	Clayton 319-873-3736	11 11	44	35 41	26 3	0	0	0
RONALD HEINRICH ROUTE 2 BOX 206 MAGUOKETA IA 52060	319 652-6143	2	4	4	0	0	0	0
MRS MAXINE HEINZE ROUTE 3 FORT DODGE IA 50501	Webster	30 26	29 19	42 40	0	0	0	12
CAROL HENDERSON ROUTE 1 BOX 64 EARLHAM IA 50072	Dallas	12 2	10	4 4	0	0	1	0
MRS GEORGE HERMANSEN ROUTE 1 BOX 58 CORNING IA 50841-9725	Taylor 515-322-4542	3	0	0	0	0	0	12
HARLAN HERTZKE ELLSWORTH IA 50075	Hamilton 515-836-4811	0	0	0	0	0	0	12 25
BILL/MARGE HEUSINKVELD 840 S PARK CENTERVILLE IA 52544	Appanoose 515-856-2342	18 8	29 5	29 25	14 14	0	0	12
JACQUELYN HILL ROUTE 2 BOX 61 ELLSWORTH IA 50075	Hamilton 515-836-4579	140 37	250	155 136	72 69	5 5	0	12

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL	17 EABL	EABL	TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Pledged	#Hatched #Pledged	#Hatched #Pledged	#Houses #Pledged	#Compmt #Pledge
BEVERLY HORTON ROUTE 3 BOX 6 IOWA CITY IA 52240	Johnson 319-351-4542	2 1	5	5 5	0	0	0	0
MILDRED HOSPELHORN ROUTE 1 BOX 36A AUBURN IA 51433	Sac 712-688-2879	13	44 5	28 27	0	0	0	0
WILLIAM HOUGH JR 423 W JEFFERSON WINTERSSET IA 50273	Madison 515-462-4628	0	0	0	0	0	0	12 6
LAURA JACKSON ROUTE 2 BOX 68 MADRID IA 50156	Boone 515-795-2846	8 2	6	6 6	0	1	1	0
JERRY JENSEN ROUTE 2 BOX 125 IDA GROVE IA 51445	Crawford 712-675-4875	15 12	32	29 29	0	0	12 5	0
LARRY L JOHNSON 500 3RD AVE FULTON IL 61252	Whiteside	1	0	0	0	0	0	0
LESTER M JOHNSON 421 COLLINS JEWELL IA 50130	Hamilton 515-827-5548	0	0	0	0	0	0	32 70
CHARLES A JOINER 312 4TH ST N HUMBOLDT IA 50548	Humboldt 515-332-1692	14 2	18	18 18	10 10	0	0	0
DOROTHY JONES 1422 48TH ST DES MOINES IA 50311	Polk 515-255-7857	0	0	0	0	5	0	0
GALEN JONES ROUTE 1 BOX 803 CLARKSVILLE IA 50619	Butler	10 11	18 8	20	0	0	0	0
JENNIFER JONES ROUTE 3 BOX 28 KALONA IA 52247	Washington 319-656-2168	15	49 2	31 15	0	0	0	0
LAWRENCE L KADOLPH ROUTE 1 BOX 153 HUBBARD IA 50122	Hardin 515-864-3525	30	43	39 39	0	0	0	0
MRS GLORIA KEHM ROUTE 2 BOX 87A BELLEVUE IA 52031	Jackson 319-872-5659	2 3	9 4	13 13	0	0	0	0
MRS EUGENE KEHOE ROUTE 5 SPENCER IA 51301	Clay 712-262-1847	7 1	5	5 5	4 4	0	0	0

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL	18 EABL	EABL	TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Fledged	#Hatched #Fledged	#Hatched #Fledged	#Houses #Fledged	#Compmt #Fledge
DARCY LEE KEIL ROUTE 2 BOX 235 MAQUOKETA IA 52060	Jackson 319-652-4403	6	0	0	0	0	0	0
BERT KIRCHHOFF 2459 PINE AVE HUMBOLDT IA 50548	Humboldt	4 1	4	4 4	12	0	0	0
CAROLYN/BARRY KNAPP BOX 110 ROUTE 1 WESTFIELD IA 51062	Plymouth	20 14	56	42 42	3 3	0	2	0
GARY KNOX 1432 N 16TH ST FORT DODGE IA 50501	Webster 515-573-8538	26 1	4 4	6 4	0	0	0	0
RUSS/DONNA KNUTSON ROUTE 4 BOX 269C BOONE IA 50036	Boone 515-432-6985	8 2	28	17 9	0	0	1	0
VINCENT KOLB BOX 717 LATIMER IA 50452	Franklin 515-579-6371	6	0	0	8 8	0	0	12 7
KOSSUTH CO CONS BD ROUTE 2 BOX 216A ALGONA IA 50511	Wright	0	0	0	0	0	47 56	0
GEORGE KOSTAS 174 N RANSOM OTTUMWA IA 52501	Wapello	10 11	30 3	24 24	0	0	0	0
MRS ROSE KOPPEN 186 DURANGO ROAD DURANGO IA 52039	Dubuque	3 3	9 5	13 13	0	0	0	0
SHARON LAUB ROUTE 1 BOX 188 RIPPEY IA 50235	Boone 515-436-7792	15 4	22	21 13	9 9	0	0	20
MELINDA/MELISSA LEFLEUR ROUTE 2 BOX 103 SCRANTON IA 51462	Greene 712-667-3916	35 5	65	27 20	0	0	0	0
MILTON LICHT ROUTE 1 BOX 157 HUMBOLDT IA 50548	Webster 515-546-6271	27 10	42	38 38	0	0	0	0
RICHARD LONG BOX 20 DRAKESVILLE IA 52552	Davis 515-722-3863	33 23	136	110 88	0	0	0	24 33
JOHN S LOWENBERG 2300 VAN BUREN AMES IA 50010	Story 515-232-5915	15 4	16	15 15	10 5	5 5	0	12 3

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL	19 EABL	EABL	TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Pledged	#Hatched #Pledged	#Hatched #Pledged	#Houses #Pledged	#Compmt #Fledge
HAROLD LUERS 124 WOODLAND DR MANCHESTER IA 52057	Delaware 319-927-5145	55 14	66	66 59	20 20	0	0	0
ALFRED J MARSO ROUTE 2 BOX 93 BODE IA 50519	Humboldt	2 2	12	11 7	0	0	0	0
JIM MCCAULLEY BOX 473 MANSON IA 50563	Calhoun 712-469-3514	9	0	0	0	0	0	13
VERN MCCORMICK 1195 SECRIST ROAD MARION IA 52302	Linn 319-854-6508	14 3	16	13 12	0	0	2	0
HEIDI MCNEIL ROUTE 1 BOX 9 PRESTON IA 52069	Jackson 319-689-6267	11	25	20 17	3 3	0	0	0
JON MCVAY 5 HILLCREST HTS MT VERNON IA 52314	Linn 319-895-6527	12 2	9	8 8	0	0	0	0
JERRY MICHAELSON 500 JOHNSON ST BOX 183 JEWELL IA 50130	Hamilton 515-827-5275	0	0	0	0	0	0	12 yes
JOHN N MICKELS 204 N 3RD ST BOX 56 PANAMA IA 51562	Shelby 712-489-2015	6	0	0	0	0	0	24 yes
JAY MOELLER 2196 CONCORD COURT DUBUQUE IA 52001-7117	Dubuque 319-582-2242	1	0	0	0	0	0	0
SHIRLEY MOENCH 2133 JUNIPER AVE HUMBOLDT IA 50548	Humboldt 515-332-1641	5 3	11	11 11	4 4	0	0	0
MARY M MONTGOMERY PLEASANT VIEW APT 8C CENTERVILLE IA 52544	Appanoose 515-856-6947	20 6	76	30 27	0	0	0	0
FRANCIS/VERA MOORE ROUTE 4 BOX 145 AMES IA 50010	Story	2	0	0	0	0	0	0
MARIE MORTON ROUTE 1 BOX 119 WEBSTER CITY IA 50595	Hamilton 515-832-2562	14 3	35	15 10	0	0	0	0
DARWIN (DEAN) MOSMAN ROUTE 1 BOX 112A ELKHART IA 50073	Polk 515-967-2951	80 35	218 4	162 134	0	5 4	0	186 307

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL		EABL		TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Fledged	#Hatched #Fledged	#Hatched #Fledged	#Houses #Fledged	#Compmt #Fledge	
CLARK MOWRY ROUTE 1 BOX 9 WEBSTER CITY IA 50595	Hamilton 515-832-2767	2 1	4	4 4	0	0	0	0	
GLENN L MYERS ROUTE 4 BOX 169 OTTUMWA IA 52501	Wapello 515-935-2486	33 17	160 10	61 51	0	0	0	0	
MYRON G MYERS ROUTE 1 BOX 107 RICEVILLE IA 50466	Floyd 515-985-2438	9 3					0	0	
CAROL NEEDHAM ROUTE 2 BOX 18 GREENE IA 50636	Butler	25		20 20		0	0	0	
MRS DELORES NELSON ROUTE 3 BOX 71 ATLANTIC IA 50022	Cass 712-243-1402	8 9	39	30 21	0	0	0	0	
DIANE NEWMAN 902 2ND ST SE BOX 435 TRIPOLI IA 50676	Bremer 319-882-3413	0					0	0	
MARCIA NEWMEISTER 205 S 33RD ST W DES MOINES IA 50265	Polk 515-225-3723	4 2	8	8 8	0	0	0	0	
R R OEHLER 1303 MAPLE ATLANTIC IA 50022	Cass 712-243-1026	18 5	32 10	21 17	0	11 11	0	0	
MRS DEAN PAEPER 2280 130TH ST LIVERMORE IA 50558	Humboldt 515-379-1842	4	0	0	0	0	0	0	
PANORA BOY SCOUTS BOX 224 PANORA IA 50216	Guthrie 515-755-2649	15 1	9	6 5	0	0	0	0	
L F PARKER MD 686 63 ST DES MOINES IA 50312	Webster 515-277-6927	8	0	0	0	0	0	0	
EDNA PETERS ROUTE 2 BOX 27 ROCKWELL IA 50469	Cerro Gordo 515-822-4920	35 4	104	23 12	0	0	0	4	
TONY PITZEN ROUTE 2 BOX 91 HAMBURG IA 51640	Fremont 712-382-1704	16 29	118 7	92 92	0	0	0	0	
DON POGGENSEE ROUTE 1 IDA GROVE IA 51445	Ida 712-364-3491	24 5	41	34 25	6 6	0	0	0	

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL	21 EABL	EABL	TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Fledged	#Hatched #Fledged	#Hatched #Fledged	#Houses #Fledged	#Compmt #Fledge
AMY/MAURICE POLIVKA 12906 OHIO CIRCLE OMAHA NE 68164	Washington 402-493-9651	23 4	8 11	19 16	0	0	0	0
BONNIE PRINTY ROUTE 1 BOX 266 KEOKUK IA 52632	Lee	3 1	3	3 3	0	0	0	0
DAVID QUEGG 501 6TH ST CORALVILLE IA 52241	Johnson	41 7		28 26	0	0	14 7	0
SELWYN RASH BOX 95 ELLSWORTH IA 50075	Hamilton 515-836-4899	0	0	0	0	0	0	12 6
VERNETA RASH ELLSWORTH IA 50075	Hamilton 515-836-4813	0	0	0	0	0	0	12 3
RICHARD RASMUSSEN 4503 S 16TH ST OMAHA NE 68107	Pottawattamie 402-731-3939	39 6	30	30 25	83 78	14	0	0
DALE F REIS ROUTE 2 LIME SPRINGS IA 52155	Howard	50						
SUSANNE REITER ROUTE 1 BOX 37 HOPKINTON IA 52237	Delaware 319-926-2182	8 8	34 4	38 38	0	0	0	12
TERRY ROSS ROUTE 3 BOX 225 GLENWOOD IA 51534	Mills 712-527-4153	2 1	2	2 2	0	0	0	8 3
MRS VICTOR ROSS ROUTE 3 BOX 244 MANCHESTER IA 52057	Delaware	18 6	56	43 32	5	0	0	0
DONNA ROURICK 1700 BRYN MAWR ATLANTIC IA 50022	Cass 712-243-4687	88 29	138 10	123 114	0	0	0	0
MRS TED RUMELIOTE 1012 W STATE ST MASON CITY IA 50401	Cerro Gordo 515-423-3753	0	0	0	0	2 2	0	0
RICHARD/DOROTHY SANDRY ROUTE 2 LANSING IA 52151	Allamakee 319-535-7310	23 17	159	71 66	17 12	0	0	0
DEBBIE/ED SCHERRER ROUTE 2 BOX 277K N LIBERTY IA 52317	Johnson 319-626-6242	3 1	3	3 3	0	0	0	0

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL		EABL		TRES	BCCH	AMKE	PUMA
		#Houses #Broods	#Bl Eggs #Wh Eggs	#Hatched #Fledged	#Hatched #Fledged	#Hatched #Fledged	#Houses #Fledged	#Compmt #Fledge	
SHIRLEY SCHIRCK 228 W 21 CARROLL IA 51401	Carroll 712-792-4615	11 1	4	4 4	0	0	0	12 5	
PAT SCHLARBAUM ROUTE 2 AMES IA 50010	Boone 515-233-1893	12 13	51 5	51 50	0	0	0	0	
PAT SCHLARBAUM ROUTE 2 AMES IA 50010	Story 515-233-1893	2 2	9	9 9	0	0	2 5	0	
CONRAD SCHLEMMER 1218 WEDGEWOOD DRIVE COUNCIL BLUFFS IA 51503	Pottawattamie 712-322-1001	9 8	40	37 36	0	0	0	0	
WAYNE SCHMIDT ROUTE 3 CHARITON IA 50049	Lucas 515-862-3893	4 4		11	0	0	0	32 17	
MARGARET SEECK BOX 261 101 ASH ST LOHRVILLE IA 51453	Calhoun 712-465-2865	23 7	38	25 20	3 3	0	0	0	
CLARENCE SERBOUSEK ROUTE 2 CEDAR RAPIDS IA 52404	Johnson 319-848-4938	4 2	9	9 9	0	0	0	0	
T E SHEA 528 GRAND AVE STORM LAKE IA 50588	Buena Vista 712-732-3830	40		65 40	19 19	0	0	0	
EUGENE L SMITH 1325 NW 67TH PL RT 7 DES MOINES IA 50313	Polk 515-289-1714	8	4	0	0	0	0	12	
M/M STANLEY M SMITH 615 BROAD ST BOX 38 SABULA IA 52070	Jackson 319-687-2548	0	0	0	0	0	0	40 6	
R DEAN STEFFEN ROUTE 1 BOX 31 ORCHARD IA 50460	Mitchell 515-732-3830	11 4	16	15 15	14 9	0	0	0	
SHARON A STILWELL 218 S 33RD ST W DES MOINES IA 50265	Polk 515-223-6518	5 2	9	9 9	0	0	0	0	
STORY CO CONS BD ROUTE 2 MCFARLAND PARK AMES IA 50010	Story 515-232-2516	58 15	87	60 60	5 5	10	0	96	
BARB SYLVESTER ROUTE 3 BOX 73 WEBSTER CITY IA 50595	Hamilton 515-832-4207	7	0	0	0	0	0	0	

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL		EABL #Hatched #Fledged	TRES #Hatched #Fledged	BCCH #Hatched #Fledged	AMKE #Houses #Fledged	PUMA #Compmt #Fledge
		#Houses #Broods	#Bl Eggs #Wh Eggs					
LYNN TAVENER 2021 BURNSIDE DR MUSCATINE IA 52761	Muscatine 319-263-2368	10 6		34 26	0	0	0	0
BUD TAYLOR ROUTE 1 BOX 56 OAKLAND IA 51560	Pottawattamie 712-482-3334	13 10	56 5	41 36	0	0	0	yes
VIRGINIA THARNISH ROUTE 1 BOX 57 AUBURN IA 51433	Sac 712-688-2861	7 3	14	14 9	0	0	0	0
GERRY THOMPSON 419 CRESTVIEW OTTUMWA IA 52501	Wapello 515-682-1507	27 15	92 4	72 61	0	9	0	12
JOHN R TIFFANY ROUTE 2 BOX 58 IOWA CITY IA 52240	Johnson	2	0	0	0	0	0	0
LLOYD TUCHEK BOX 165 444 DES MOINES ELLSWORTH IA 50075	Hamilton 515-836-4536	0	0	0	0	0	0	12 6
MRS CHAS H TURNER 1507 BENT ST BEDFORD IA 50833	Taylor 712-523-2246	0	0	0	0	0	0	18 yes
RICK ULLOM CHESTER IA 52134	Howard 319-565-4271	72 27		181 131	0	0	0	0
PHIL J VALENTINE ROUTE 1 BOX 67 BLAKESBURG IA 52536	Monroe 515-938-2856	40 20	130	98 76	0	2 2	0	0
PHIL J VALENTINE ROUTE 1 BOX 67 BLAKESBURG IA 52536	Wapello 515-938-2856	160 61	401 8	279 246	5 5	12 7	0	0
NANCY VAN ZEE ROUTE 3 BOX 364 PELLA IA 50219	Marion	2 1	13	3 3	0	0	0	0
ANITA VASQUEZ 1267 ELMHURST DR CEDAR RAPIDS IA 52402	Linn 319-365-7043	12 1	3	3 3	0	0	0	0
RAY VOGEL 725 MAPLE FONTANELLE IA 50846	Adair 515-745-2151	25 5	34	29 25	0	0	0	0
RAY VONDRACEK 1635 31ST ST SE CEDAR RAPIDS IA 52403	Linn	13 2	28	12 8	0	0	0	0

NAMES ADDRESS CITY & ZIP	COUNTY PHONE	EABL		EABL #Hatched #Fledged	TRES #Hatched #Fledged	BCCH #Hatched #Fledged	AMKE #Houses #Fledged	PUMA #Compmt #Fledge
		#Houses #Broods	24 #Bl Eggs #Wh Eggs					
GERALD VON EHWEGEN 2713 S ST MARY SIOUX CITY IA 51106	Woodbury 712-276-1546	2 1	4	4 4	0	0	0	0
M/M CHARLES WALLING 1103 WOODLAND ROAD OSKALOOSA IA 52577	Mahaska 515-673-3275	26	0	0	0		0	0
BARTON G WEBB 2909 PALM ST ATLANTIC IA 50022	Audubon 712-243-2201	1 2	10	9 8	0	0	0	12 12
EVA B WIEDEMEYER 1015 N ADAMS ST CARROLL IA 51401	Carroll 712-792-3746	8 2	25	14 6	5 5	0	0	0
RONNYE WIELAND ROUTE 2 BOX 142 NORTH LIBERTY IA 52317	Johnson 319-626-2398	5 2	9	9 9	0	0	0	0
DEAN WILCOX ROUTE 1 MAQUOKETA IA 52060	Jackson 319-673-5471	1	10	10 10	0	0	0	0
DEAN/DONNA WOLFE 108 2ND ST BONAPARTE IA 52620	Van Buren 319-592-3377	135 64	673 5	290 258	0	0	0	0
MIRIAM WOODS 1101 HAROLD DR SE CEDAR RAPIDS IA 52403	Linn 319-366-2323	13 1	12	4 4	0	0	0	0
LARRY WUNDER ROUTE 4 HARLAN IA 51537	Shelby 712-744-3451	250 89	426	333 315	0	5 5	1 4	32 26
SUE YEAKEL ROUTE 1 STORY CITY IA 50248	Story 515-733-2003	5	0	0	0	0	0	12 5
AL YUSKA 1030 NEW ST MANCHESTER IA 52057	Delaware 319-927-3147	50 23	91	74 66	0	0	0	12

PREDATORS AND PROBLEMS ON THE BLUEBIRD TRAIL

It would be great if all we had to do is stick up a bluebird house and presto! - at least six weeks of pleasure watching a loving bluebird family, and pride in helping to establish a stable bluebird population in our area. But - tragedies do occur. 'Older' bluebirders have gradually learned how to avert most of the potential troubles. Here are some tried and true solutions, many from Vi and Dick Peterson's long-established trails:

Nest:

- A. Clue: Little sticks in house, often on top of BB nest. Culprit: W
- B. Clue: (Usually white) feathers on top of BB nest. Culprit: TS
- C. Clue: Debris, paper, weeds along with grass nest, often circled high. Culprit: E
- D. Clue: Shredded bark, leaves, etc. filling box. Culprit: RS
- E. Clue: Shredded milkweed, seed and coneflower seed heads. Culprit: MI
- F. Clue: (Rare) coarse grass mixed with live green weeds. Robin-size eggs but lighter blue than robin. Culprit: S

Nests with moss and fur-topped (chickadee) and large grass with bits of snakeskin (crested flycatcher) should be welcome as long as there are enough boxes.

Eggs:

- G. Clue: Bluebird eggs suddenly disappear, nest undisturbed. Culprit: W,E,SN
- H. Clue: BB eggs disappear, nest partially pulled out of hole. Culprit: RN or CT
- I. Clue: BB eggs shattered on ground or in nest. Culprit: W,E,RS,Chipmunk

Babies:

- J. Clue: Babies gone, nest intact, parents still around. Culprit: CT,SN,E
- K. Clue: Babies gone, nest partially pulled through hole. Grass may be trampled down. Culprit: RN or CT
- L. Clue: Babies dead outside box, sometimes 1/day. Culprit: E
- M. Clue: Babies suddenly dead in nest, bodies unmarked, stomachs full, parent still around. Culprit: I
- N. Clue: Babies dead in nest, emaciated. Culprit: CT or other predator got parents
- O. Clue: Babies dead in nest, little blackflies around, red welts on body, especially under wings. Culprit: GN

- P. Clue: Babies dead in nest, large red welts over bodies, black pupae or gray maggots under nest. Culprit: BL larvae
- Q. Clue: Babies mutilated in nest. Culprit: E,W,MI,RS
- R. Clue: Mother dead in box, head feathers and/or eyes pecked out. Culprit: E

SOLUTIONS:

- W=Wren - Male wren will put sticks in any cavity he can find to attract female. She will finish nest she chooses. Constantly remove male wren's sticks. Wrens are fierce competitors, will carry out whole BB eggs or peck holes in them. Move BB boxes away from brush, undergrowth, trees. In contrast to popular theory, wrens do not prefer small-holed boxes, but if they can be kept widely separated from BB houses, erect wren houses near areas of dense brush.
- E=English Sparrows - The worst avian enemy of bluebirds! They will kill adult BBs caught in box as well as babies and take over nest boxes, especially close to buildings and places where they can feed. Not protected by law, they MUST be eliminated. If you cannot do this, do NOT start a bluebird trail, for you will end up decreasing bluebirds who might nest elsewhere safely. Let them start to nest, then catch with Peterson sparrow trap or other means and destroy. Be sure you get both male and female; destroy eggs and nests.
- TS=Tree Swallow - Have become a real problem on some trails by taking over nest boxes. Pairing (25 feet apart) of boxes works for some; adding boxes after bluebirds have nested is also used. Try to always have some boxes free. Tree swallow guards have not proven successful though the swallows may prefer a paired box without guards. Remove used nests of swallows and bluebirds as quickly as possible to provide maximum nesting opportunities. Sterilizing of some of the tree swallow eggs in each box to reduce population is NOT legal!
- S=Starling - Enlarge hole in Peterson sparrow trap, or catch after dark in nest box. Not protected by law. Eliminate.
- SN=Snake - Use separate posts if possible, wrap wood post high with tin right up to bottom of box.
- RN=Raccoon - Same as snake prevention and use cat/'coon guard.
- C=Cat - Can be worst mammalian enemy of bluebirds. Usually leaves some feathers around. If the cat is known and cannot be confined or leashed during the nesting period, front claws must be trimmed to prevent it from snaring young from box or adults who are dive-bombing it. Trimming nails will not keep a cat from climbing trees to protect itself. Cats with declawed front paws can still climb. Itinerant cats should be disposed of, as they are dangerous to have around and can spread disease. A single cat can eat 50 songbirds a week!

NOTE: Always place houses as high on posts as possible - at least 5' to 6' and wrap with tin - to reduce predation from cats, raccoons and snakes. Low houses do not discourage sparrows or wrens, but invite predation. Double-stick tape stapled around box will detect raccoon or cat fur. Look for claw marks on wood.

MI=Deermice - Often nest over winter in boxes which cannot be left open or hole closed off. Besides saturating box, they will return to it and eat young birds.

RS=Red Squirrel - They also will eat young birds. Keep holes closed in winter or leave box open. Wrap posts high with tin. Same for chipmunk.

I=Insecticide poisoning - Usually a problem with second nesting. Try to determine if farmer or gardener plans to use such poison; if they can't hold off till young have fledged, then block boxes so BBs won't use. If you suspect insecticide poisoning, try to take freshly dead babies to your nearest DNR Nongame specialist to analyze (freeze them if necessary). It won't save those babies, but you can be prepared next time.

BL=Blowflies - Seldom a real problem in Peterson house. If you find small black pupae or gray maggots near bottom of nest, lift nest out with young and shake out all insects you can, brushing off floor. A whole new nest can be quickly constructed of new grass and babies replaced. Adults will not abandon if this is done quickly and carefully.

GN=Gnats or Blackflies (tiny) - An emerging problem in certain wide belts where there is high moisture, such as swampy areas. Doug Garner's method has proven completely effective: A product made by Farnham to spray on open wounds of horses controls the problem in martin and bluebird houses where heretofore many deaths were caused by swarms of blackflies. The main ingredient is pyrethrin. We know of no better alternative today than this, called "Flies Away II".

A=Ants - Slip a paste or liquid ant poison under nest, where it will not be reached by young or adults. Or staple Q-tip soaked in terro liquid ant poison under nest or under bottom of house.

A CHECKLIST OF BLUEBIRD NEST BOX OCCUPANTS

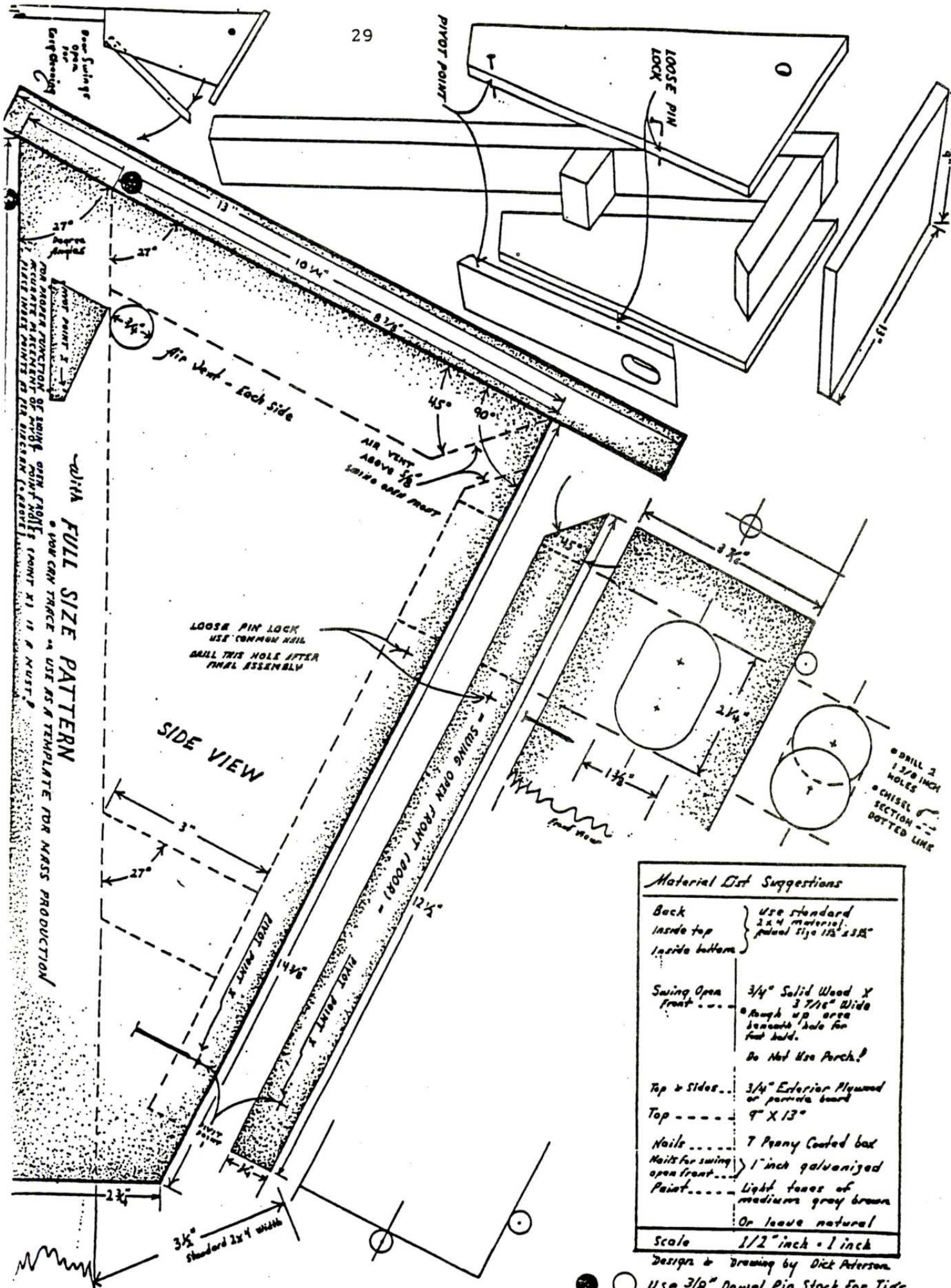
1) Do not open when full size

2) Remove nest as soon as fledged

MM

0 10 20 30

SPECIES	NEST				EGGS		
	MATERIAL	SHAPE	CONDITION	LOCATION	COLOR	SIZE	NO. OF DAYS OF INCUBATION
BLUEBIRD	THIN GRASS WEED STEMS	CUP	CLEAN	OPEN AREA	LIGHT SKY BLUE (93%) WHITE (7%)	21 x 16 mm	3 - 6 usually 5
CHICKADEE	HAIR MOSS, PLANT DOWN, INSECT COCONOS	CUP	MOSS PULLED OVER EGGS	NEAR WOODS	WHITE WITH DARK REDDISH- BROWN SPECKLES	15 x 12 mm	5 - 8
HOUSE SPARROW (English)	LOOSE WEEDS LEAVES, FEATHERS TRASH	CIRCLE or SCATTERED	WILL BUILD OVER DEAD BIRDS THEY KILLED	ANY WHERE	CREAM WITH BROWN SPECKS (sometimes pale green backgd)	23 x 16 mm	3 - 7
HOUSE WREN	STICKS (often stuffed nearby cavities)	BOX WITH STICKS	SOFT CUP AT TOP OF WITHIN 100' OF WOODS		PALE PINK WITH REDDISH-BROWN FLECKS	16 x 13 mm	6 - 8
NUTHATCH	FEATHERS HAIR FIBERS	CUP	CLEAN	NEAR WOODS	WHITE OR PINK WITH REDDISH- BROWN SPECKLING	19 x 14 mm	5 - 9
TREE SWALLOW	LARGE LOOSE STRAW OR GRASS WITH FEATHERS	FLAT CUP	FECES WILL BUILD OVER BB EGGS	OPEN AREA OR NEAR WATER	WHITE	19 x 13 mm	5 - 7
CRESTED FLYCATCHER (if hole larger than 1 1/2")	LEAVES GRASS SHEDDED SNAKESKIN	FLAT CUP	CLEAN	NEAR WOODS	IVORY WITH LARGE PURPLE SCROLLS	23 x 17 mm	4 - 5



WITH FULL SIZE PATTERN

FOR PROPER POSITIONING OF SWING OPEN FRONT...
 YOU CAN TRACE & USE AS A TEMPLATE FOR MASS PRODUCTION

LOOSE PIN LOCK
 USE COMMON NAIL
 DRILL THIS HOLE AFTER
 FINAL ASSEMBLY

● DRILL 2
 1 3/8 INCH
 HOLES
 ● CHISEL
 SECTION --
 DOTTED LINE

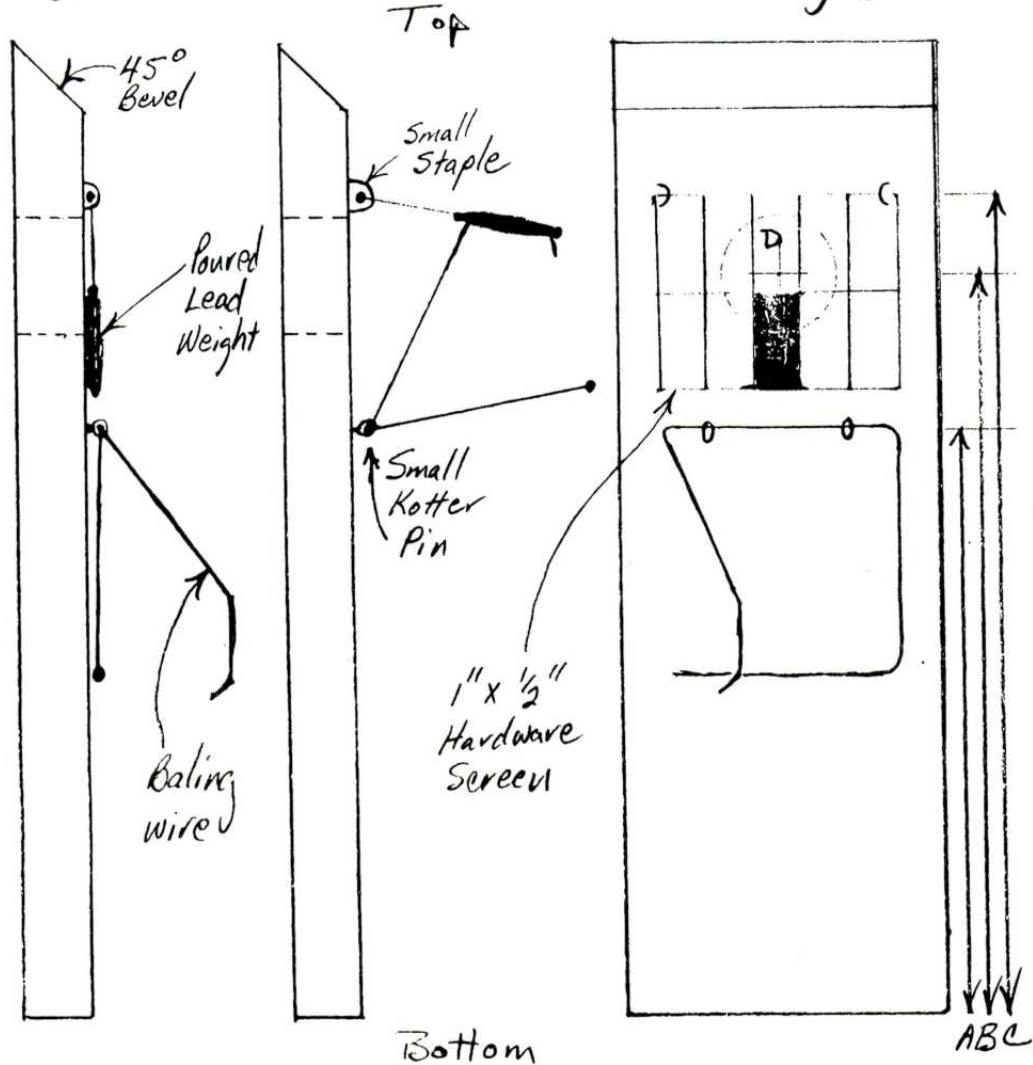
Material List Suggestions	
Back	} use standard 2x4 material; actual size 1 1/2" x 3 1/2"
Inside top	
Inside bottom	
Swing Open Front	3/4" Solid Wood X 3 7/16" Wide ● Rough up area beneath hole for foot hold. Do Not Use Porch!
Top & Sides	3/4" Exterior Plywood or particle board
Top	9" X 13"
Nails	7 Penny Coated box
Nails for swing open front	} 1" inch galvanized
Paint	
Scale	1/2" inch = 1 inch

Design & Drawing by Dick Peterson

● ○ Use 3/8" Dowel Pin Stock for Jigs

SPARROW TRAP

(For Petersen Blue Bird Box Design)



Materials;

- 1 - 1" x 4" x 10" (one end 45° bevel)
- 2 - Small Staples
- 2 - Small Kottor Pins (pre drill holes)
- 1 - 2" x 2 1/2" Hardware Screen
- 1 - 11 1/2" pc. Baling Wire

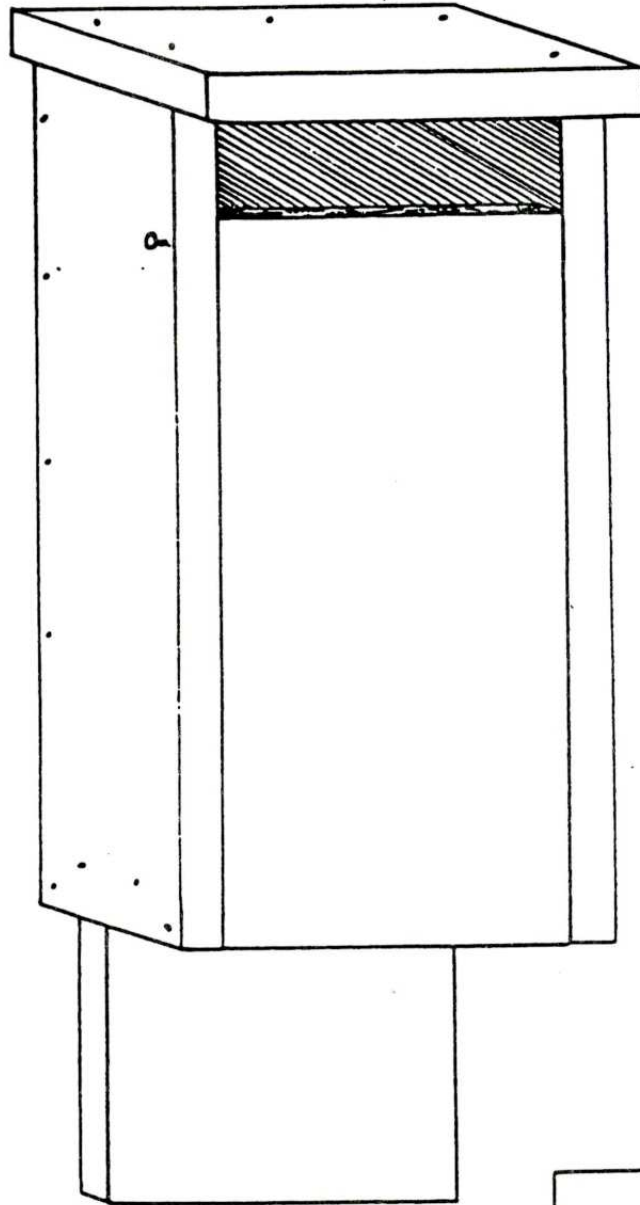
Small amount of melted lead to fill center square on lower row of hardware screen.

Measurements;

- A. 6"
- B. 7 5/8"
- C. 8 3/8"
- D. 1 3/8" hole

* Pre assembled kit for purchase \$3.00 (add \$1.50 s/H)
 Rita Efta, Auburn, IA. 51433 (712-688-2873)

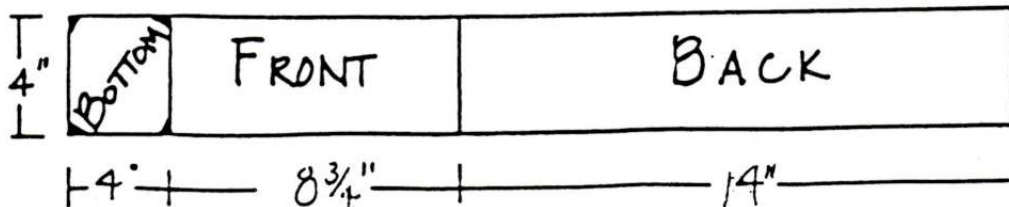
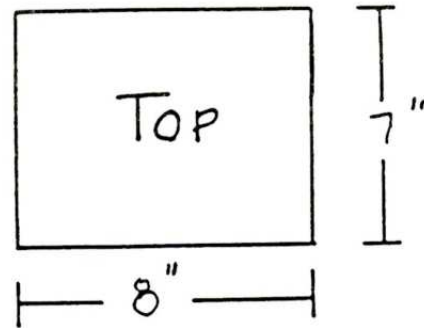
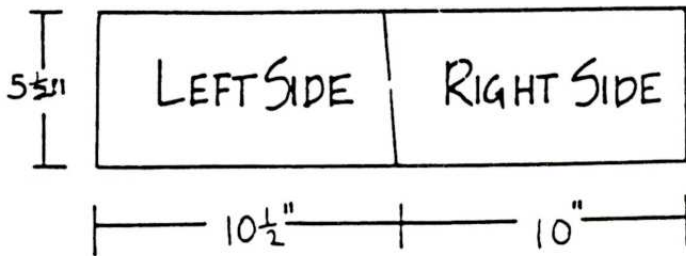
BLUE BIRD SLOT BOX



$1\frac{3}{16}$ " SLOT

ROUGHEN THE
INSIDE OF
THE FRONT PIECE

RECESS BOTTOM $\frac{1}{4}$ "

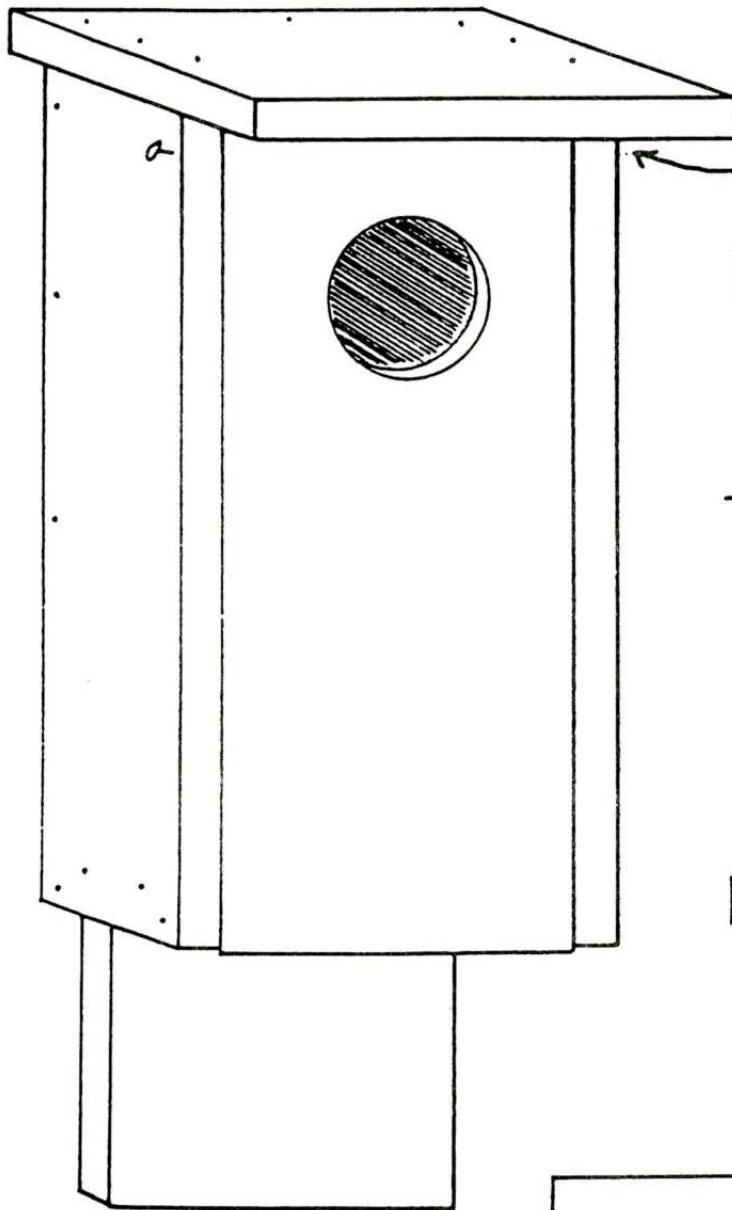


BLUEBIRD BOX

32



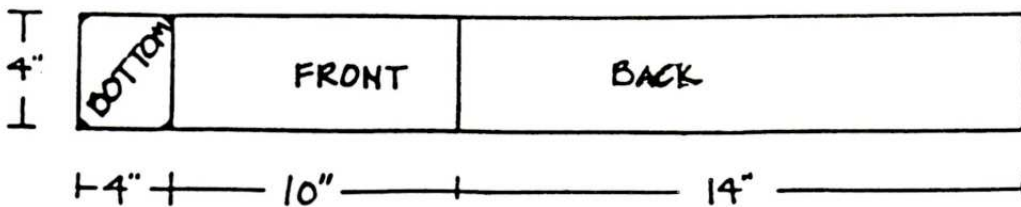
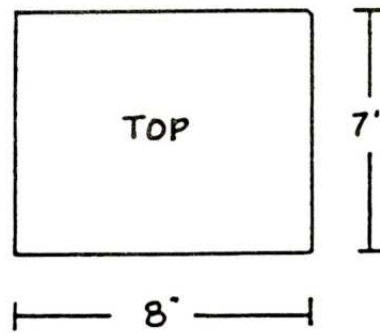
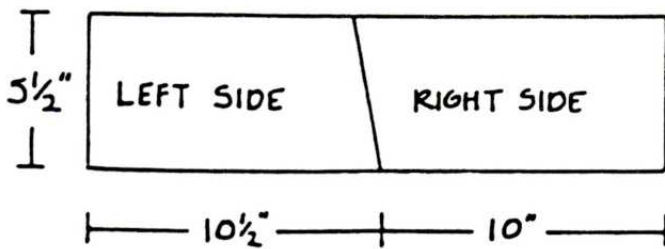
COMPLIMENTS OF:
Iowa's
Nongame
Program



1/4" GAP BETWEEN
TOP AND FRONT

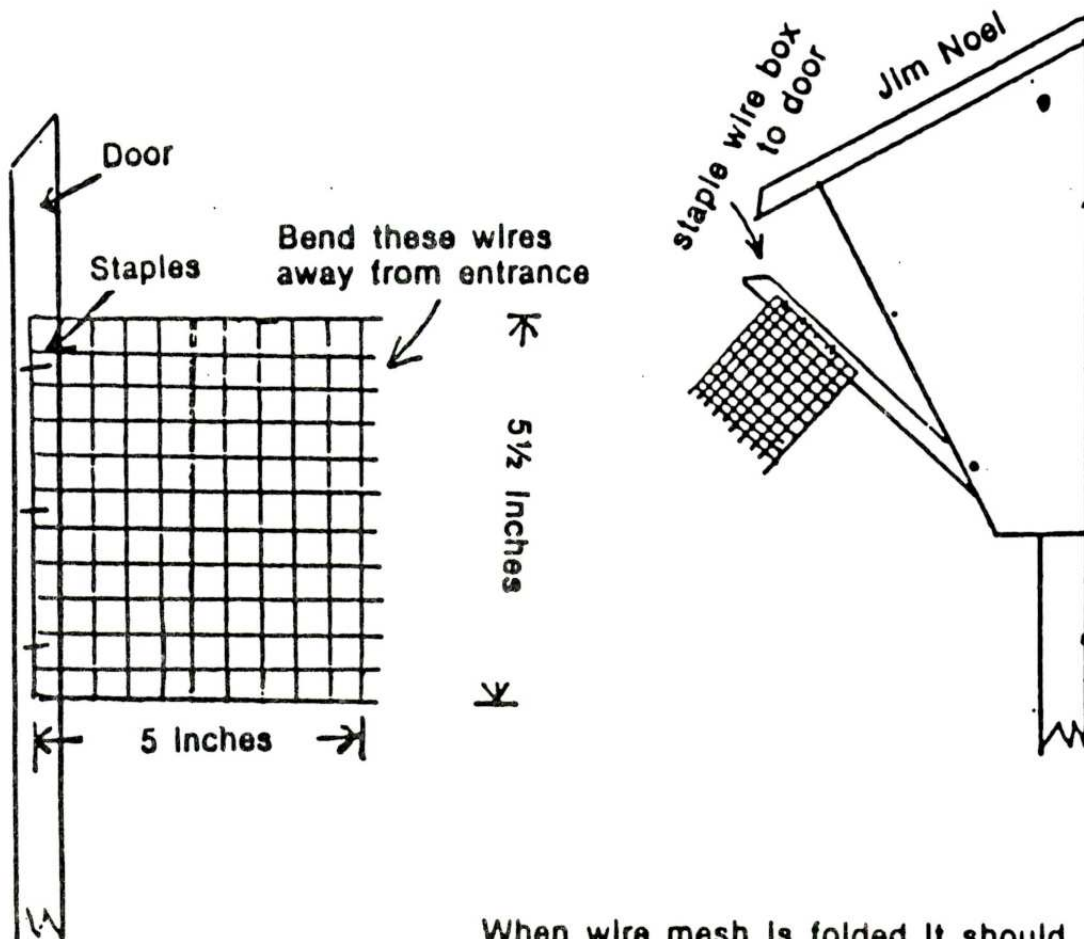
HOLE IS 1 3/8" - 1 1/2"
ROUGHEN THE
INSIDE OF
THE FRONT PIECE

RECESS BOTTOM 1/2"

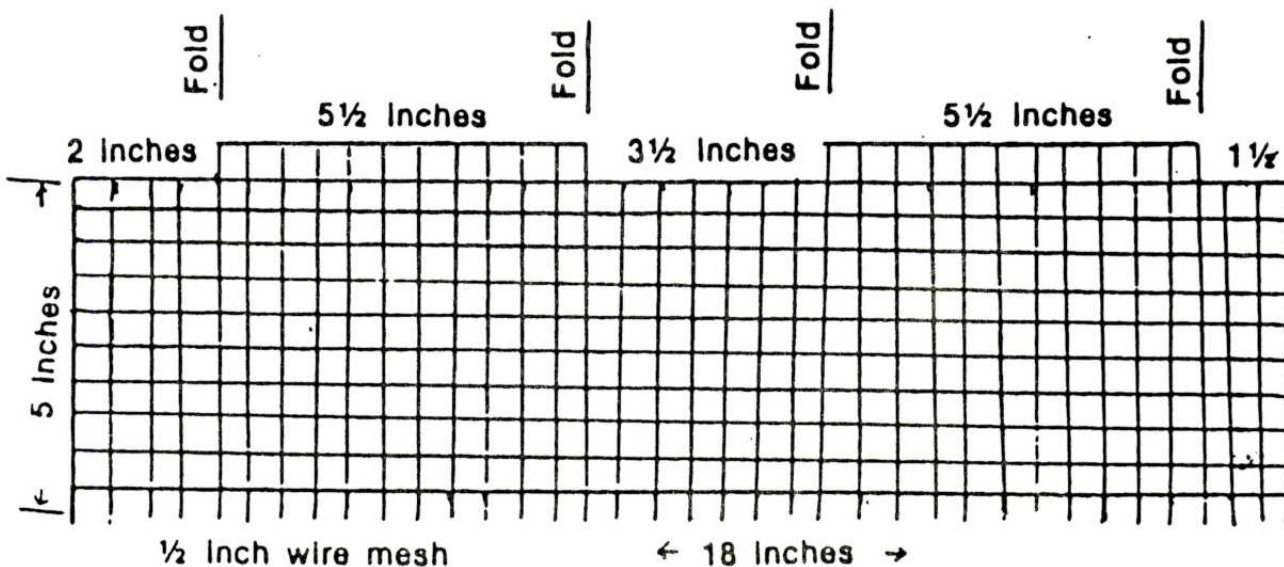




JIM NOEL WIRE COON GUARD



When wire mesh is folded it should form a 3 1/2" wide by 5 1/2" tall box



- Question: A predator (cat or racoon) interfered with one nest.
- Answer: Use printers plate around post, disc blade or flashing under houses, or use Noel guards.
- Question: Had trouble with mice
- Answer: Keep houses open during the winter months, if possible. So mice aren't accustom to the area.
- Question: Tore out 63 house sparrow nests.
- Answer: Monitor houses after supper or night run, catch male sparrows when they are settled in. Use a front door trap insert. I read several of you are shooting them. What ever works!
- Question: What can be done about the wrens?????
- Answer: ??????
- Question: Starlings nested in one box.
- Answer: Use a 1½ inch entrance hole.
- Question: Dead birds in box?
- Answer: Is the door rough or grooved inside under hole? Do you have plenty of ventilation?
- Question: There was no mention of wasps which I find often.
- Answer: Rub a bar of soap on ceiling or under floor with Peterson system. Vaseline brushed on also works.
- Question: Can ten year government ground be suitable habitat?
- Answer: If you mow a path, we found that a stock cutter is short enough.
- Question: Why are some people successful and we have monitored for a few years and are not successful??
- Answer: Use the directory and call a bluebirder or one who monitors martin houses, ask if you may walk their trail with them or see the lay of the land for martins. Short clipped vegetation is a big factor for bluebirds. Martins appreciate water and egg shells also.

I copied questions and answers from your comments on the back of the 1990 report forms. If you disagree, I would appreciate hearing from you. Thank-you for all you input.

Take Care and Good Birding
Jacquelyn Hill

35
1991 Nest Box Record
(Final Date for Returns - September 30, 1991)

Name (Please print, type, or use address label) Street or RFD Phone #

City State Zip Code

_____ Please list the county in which your boxes are located. (If your boxes are in more than one county, please report each county on a separate sheet.)

Bluebirds, Swallows, Chickadees, etc.

- _____ Number of bluebird houses you monitor
- _____ Number of houses that were occupied by bluebirds
- _____ Total number of bluebird nesting attempts
- _____ Number of successful bluebird nests
- _____ Total number of bluebird eggs laid ___ blue ___ white
- _____ Number of bluebirds hatched
- _____ Number of bluebirds presumed fledged

Number of boxes with:

- _____ one nest ___ two nests ___ three nests

Number of nest boxes occupied by:

- House sparrows ___ Starlings ___ House wrens ___ Tree swallows ___ Chickadees ___
_____ Others (please list)
- _____ Number of tree swallows ___ hatched ___ fledged
_____ Number of chickadees ___ hatched ___ fledged

Kestrels

- _____ How many kestrel boxes do you maintain?
- _____ In how many boxes did kestrels nest?
- _____ How many eggs did kestrels lay in your boxes?
- _____ How many young kestrels fledged from your boxes?

Martins

- Do you maintain a purple martin house? ___ yes ___ no
- _____ How many compartments?
- If yes, have martins used the house in previous years? ___ yes ___ no
- Did martins occupy your house this year? ___ yes ___ no # fledged _____

Other birds

Please list other species for which you provide nesting structures including the number of successful nesting attempts (e.g., screech owl, great-crested flycatcher, etc.)

Species	Nests
_____	_____
_____	_____
_____	_____

Please put notes or comments on backside of page. Thank you.
Send to:
Mrs. Jacquelyn Hill, Route 2, Box 61, Ellsworth, Iowa 50075.

Instructions for 1990 Nest Box Record

An increasing number of Iowans are becoming involved with nest box projects. This year the report form includes room for most nongame bird species. This change will allow you to use the same form for several species and will allow nongame professionals to computerize the data and get reports out sooner.

Steps:

- 1) Please print or type your name and address.
- 2) Indicate the county in which your boxes are located.
- 3) Fill in the requested information about your boxes. Please note for bluebirds the number of boxes having one or more nests. I hope everybody keeps starlings and house sparrows out of their boxes, but please report the number of boxes they tried to occupy anyway so we can make comparisons about how much of a problem they are.
- 4) A bluebird *nesting attempt* is defined as a pair of bluebirds beginning nest construction, even if no eggs are laid. A *successful* bluebird nest is one that fledges at least one young.
- 5) If you have boxes for kestrels and screech owls, please report them in the next sections. Let us know even if the nests were in wood duck boxes.
- 6) A number of people wrote last year explaining that their purple martins did not return. Please help us begin monitoring martin colonies by checking the appropriate responses if you have a martin house. Also report any other songbird species for which you have boxes.
- 7) Any other comments or suggestions can be made at the bottom of this page.

I would like to help promote the Bluebird Recovery Program,
then receive the annual directory. Here is my donation of
\$3.00 or more.