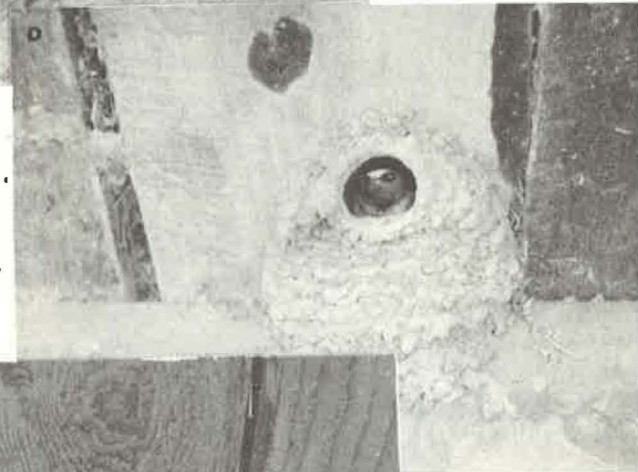




Figure 3

E. Cliff Swallow nest built under a metal roof.

D. (right----) Cliff Swallow nest with a bird inside.



F. (Below) Cliff Swallow nest built on top of a Barn Swallow nest.



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AN EMPIDONAX DATA FORM  
By Robert P. Yunick

Two recent papers by Phillips, Howe and Lanyon (1966) and Phillips and Lanyon (1970) have created a new pastime for banders who handle Empidonax flycatchers. To those banders who take seriously the confirmation of identity of the species they handle, there is probably no group of passerine species with as extensive a check-list of identifying criteria as the Empidonax group.

If one takes the time to key out each and every one of these birds as one should do, it seems a shame not to keep a permanent record of the characteristics and measurements. There are two compelling reasons for making a permanent record of the identification data on the Empidonax group: 1) To enable one to confirm the identity at any subsequent time; and 2) To offer some measure to an individual bander's variability and agreement with the key.

The value of #1 can be illustrated by a situation that occurred much to my chagrin in the fall of 1970. During a morning of peak activity at Vischer Ferry while Will Merritt and I were banding before a bird club group, Will asked me to identify an Empidonax that had him and several observers puzzled. In my haste I identified the bird as a Traill's flycatcher, but was not completely convinced because of the bird's greenish appearance. I rationalized this identification decision at the time on the basis that while I had not previously seen a Traill's flycatcher quite so green, I had seen them show varying greenish tendencies that differed from the usual olive-brown. Later at home I was transferring the banding field notes to various record files when I came upon the bird on Will's carbon copy. I mentally recalled the bird in the hand, and was suddenly stricken with the realization that I had misidentified what probably had been a rare Acadian flycatcher - our first ever at Vischer Ferry.

Because Will had recorded various criteria referred to by Phillips et al., we were able to review these, and confirm throat coloration with others who had seen the bird, thus allowing us to correct this error on my part and confirm the identity as that of an Acadian flycatcher.

The value of #2 becomes apparent when one considers how all measurements are subject to variability due to the individual and his methods of taking data. There are times when all the criteria of Phillips et al., do not agree perfectly and one must make a value judgement on an identity. At such times it is handy to know what the variability in a particular measurement is, so that one may ascribe some degree of reliability to that identifying characteristic. At times when a key indicates that a measurement of 5.5 mm. or less differentiates A from B, a bander who has kept such records may be aware that in his experience a value of 6.0 or less has typically been the line of differentiation. Only with permanently recorded facts and an analysis of these can one benefit from them.



Band No.	Date	6P Emar	Form A 5P-10P	Form B T-6P	Form J 6P-10P	Wing mm	Tail mm	Wing Tip	Mouth Color	Wing BarC	Bill mm
Column #1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12

Since data recording can sometimes be cumbersome, or the data can be scattered in various notes, I have devised and put into use a special form for Empidonax, which I use to supplement my usual banding notes. This form has proven quite suitable since I began using it in 1968, and I have recently revised it to include more information. I take this opportunity to pass on to other banders the make up and use of this form, so that others might benefit from it.

Reproduced here as Figure I is the heading of the form with, for explanation purposes, all the columns numbered. (The portion reproduced on p. 86 forms the left part and that on p. 87, the right part of the form. Headings are typed along the longer side of an 11 1/2" x 8" sheet of paper, which has 25 lines, circa 1/4" apart. Editor).

- Col. 1 - Here is recorded the number of the band placed on the bird.  
 Col. 2 - The date of capture is entered.  
 Col. 3 - This refers to whether or not the sixth primary is emarginated-yes, no or slightly.  
 Col. 4 - Formula A refers to the difference between the tips of the fifth and tenth primaries of the folded wing measured in mm. The proper mathematical sign is used to indicate which primary is greater in length. Either a "plus" or "minus" sign or a "greater than" or "lesser than" symbol is used.  
 Col. 5 - Formula B is measured in mm. by measuring the distance from the tip of the wing to the tip of the sixth primary of the folded wing.  
 Col. 6 - Similarly, formula J is recorded.  
 Col. 7 - This refers to the wing chord taken in mm.  
 Col. 8 - Tail length is entered in mm. in this column. One may indicate notching by adding an "N".  
 Col. 9 - The wing tip is the measurement in mm. from the tip of the longest primary to the tip of the longest secondary in the folded wing.  
 Col.10 - Mouth color is recorded.  
 Col.11 - This refers to wing bar color - white or buffy - and I usually enter whether it is broad or narrow, for aging purposes.  
 Col.12 - This refers to the bill length taken in mm. with dividers.  
 Col.13 - This refers to nostril width taken in mm. with dividers,  
 Col.14 - Age as determined by skull ossification - SO or SNO - is recorded.

NW mm	Age	FC	Wt. g.	Back Color	Thr Color	Crwn Color	Identity
#13	#14	15	#16	#17	#18	#19	#20

FIGURE I  
Empidonax Data  
Form

- Col.15 - Fat class, using a 0-1-2-3-scale, is recorded.  
 Col.16 - The weight in g. is entered.  
 Col.17 - The back color is recorded as either "brown" for the grey-brown or olive-brown of Least and Traill's, or "green" for Yellow-bellied and Acandian flycatchers.  
 Col.18 - Throat color is recorded as yellow, white, grey or yellow-green.  
 Col.19 - Crown color is recorded as grey, brown or green as is done for the back.  
 Col.20 - Finally identity is indicated in abbreviated form as LFC, TFC, YBFC or AFC.

Each year's data are on a separate set of sheets and are kept in an Empidonax file. In addition, at the end of each season, I segregate all the data for each species on separate sheets, so that at a glance I can look at the variations in any particular measurement of any one species and compare them to that of others.

The form presented here is a slight modification of the one I have used for four years. Columns 18 and 19 are new. Since it is sometimes important to note the occurrence of molt, though room does not exist for it in column form, space is provided at the bottom of the page (@ 1-1/4 inches. Ed.) for notes on molt for those few individuals found molting.

This form is printed lengthwise on an 8-1/2" x 11" piece of paper. One could provide more space by using 8-1/2" x 13" legal-sized paper, and expanding the column widths. Since these sheets are easily duplicated from one of the originals, I'll gladly supply a copy to anyone wanting to reproduce it for their own use if one will send me a stamped self-addressed envelope. Each sheet holds 25 entries.

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