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# Banders' Guide To Identification of Empidonax Flycatchers In Northeastern North America

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This is primarily a condensation of the paper by A. R. Phillips, M. A. Howe, and W. E. Lanyon, "Identification Of The Flycatchers of Eastern North America, With Special Emphasis on the Genus *Empidonax*". Whereas that paper is very helpful in identifying *Empidonax* flycatchers in the field, it is quite time consuming to use. This paper provides the essential information in chart form and may be reliably used to identify *Empidonax* flycatchers in northeastern North America provided the user is familiar with the original paper. It also includes material from the North American Bird Banding Manual, Vol. 1, other sources, and personal experiences of the writer. This paper may be used to identify the following species:

Least Flycatcher ..... *Empidonax minimus*  
Yellow-bellied Flycatcher .. *Empidonax flaviventris*  
Acadian Flycatcher ..... *Empidonax virescens*  
Traill's Flycatcher ..... Traill's Flycatcher is a composite of Alder Flycatcher (*Empidonax Alnorum*) and Willow Flycatcher (*Empidonax traillii*) which are separable in the field using their song but not considered to be safely identified in the hand with 95% or greater confidence.

This guide is only for full grown birds, not for birds having the bases of flight feathers (wing and tail) enclosed in sheaths. It may be used for molting adult birds where a few sheathed feathers are symmetrical in both wings or on both sides of the tail.

A molting after hatching year (AHY) *Empidonax* after the breeding season is almost certainly Yellow-bellied or Acadian. The others migrate from the northeast before wing molt.

In this guide the following notations are used:

- < = less than or shorter than
- << = much less than or shorter than
- > = greater than or longer than

- >> = much greater than or longer than
- ≤ = equal to or less than
- ≥ = equal to or greater than
- p = primary wing feather

Be sure you are completely familiar with the above-referenced paper before using this guide so you know how to properly determine each of the characteristics and be familiar with comments on each of the species. Also, be sure that the bird you are handling is an *Empidonax*.

To separate Wood Pewee from *Empidonaces*:

Wood Pewee  
wing chord > 75mm  
10th primary > 6th primary  
9th primary >> 7th primary

*Empidonaces*  
wing chord usually < 75mm  
10th primary < 6th primary  
9th primary only slightly < 7th primary

To separate Eastern Phoebe from *Empidonaces*:

Eastern Phoebe  
wing chord >> 75mm, usually > 85mm  
bill all black  
Note: some fall phoebes are very yellow on the underside.

*Empidonaces*  
wing chord usually < 75mm  
bill not all black

The wing chord measurement is of the unflattened wing in the normal resting position, using a ruler with a vertical stop placed at the bend of the wing. Very good light is required to accurately determine the color of the legs. The writer has observed that often Least Flycatchers are identifiable in the hand at a glance by their smaller size, absence of yellow on the throat, and orange color of the mouth. However, you

must always check out all of the characteristics in the table to be sure. The writer has found it convenient to record all of the characteristics of each bird for future reference.

well be some individual birds whose characteristics do not meet the descriptions in the table. These should be released unbanded.

With careful use of this guide, 98% or more of the *Empidonax* flycatchers should be safely identified. There may very

The author is indebted to Dr. Wesley E. Lanyon for reviewing and making suggestions on the manuscript.

## Identification - Full Grown Birds Only

Bird	Wing Shape	6th P Cut Out Y SI N	Formula B	Wing Chord	Tail	Bill Width Across Nostril	Mouth Color	Throat Color	Crown and	Leg	Remarks
Least	10P $\leq$ 5P Rounded	Y most SI few	< 5 Most < 4	Most < 65 Some 65-69 See Note 1	Notched	$\leq$ 5.5	Orangeish	White no trace of yellow	Crown dull gray, back olive brown	Dark brown or black	Only empid. to usually arrive before May 10
Traill's	10P $\geq$ 5P Pointed	No	Most < 6 Few 6-7	Most > 66 Few 62-65	Even or Rounded	$\geq$ 5.5	Bright Orangeish	White no trace of yellow	Back dull olive or brownish, some greenish Crown darker	Black	Front wing bar darker and duller than rear
Yellow-bellied	10P $\geq$ 5P Rounded	Y & SI many No few	$\leq$ 5	Most > 66 Few 60-65 See note 2	Even or Rounded	$\leq$ 5.5	Orangeish	Pale gray washed w/ yellow	Back and crown greenish	Dark Gray	
Spring-very yellow wash on chest and throat											
Acadian	10P > 5P Pointed	No	Most $\geq$ 6 Some 5.5-6	Most > 66 Few 62-65	Even or Rounded	$\leq$ 5.5	Flesh color to yellow	White or slight yellow	Crown and back gray green to greenish	Gray	Wing bars same color
HY Acadian in juvenile plumage, late summer, have scaly rump and back											

Y = Yes, SI = Slight, N = No

All dimensions are in millimeters.

Hatching year (HY) *Empidonax* of ALL species may have yellow on underside in summer and fall.

Formula B - Distance from tip of longest primary to tip of 6th primary with wing in normal closed position.

Note - All flycatchers have ten primaries.

### Note 1 Sex determination of Least Flycatcher

Wing chord  $\leq$  59 mm Female

Wing chord  $\geq$  65 mm Male

Wing chord 60 - 63 mm

If wing chord < (.13 x Formula A) + 61.8 Female

If wing chord > (.13 x Formula A) + 61.8 Male

### Note 2 Sex determination of Yellow-bellied Flycatcher

Wing chord  $\leq$  63 mm Female

Wing chord  $\geq$  68 mm Male

If wing chord < (.42 x Formula J) + 63.4 Female

If wing chord > (.42 x Formula J) + 63.4 Male

Formula A - Distance from tip of 10th primary tip of 5th primary.

Formula J - Distance from tip of 10th primary tip of 6th primary.

Both measurements made with wing in normal closed position.

## References

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