

Ketterson / Nolan Research Group Collection

This document is part of a collection that serves two purposes. First it is a public archive for data and documents resulting from evolutionary, ecological, and behavioral research conducted by the Ketterson-Nolan research group. The focus of the research is an abundant North American songbird, the dark-eyed junco, *Junco hyemalis*, and the primary sources of support have been the National Science Foundation and Indiana University. The research was conducted in collaboration with numerous colleagues and students, and the objective of this site is to preserve not only the published products of the research, but also to document the organization and people that led to the published findings. Second it is a repository for the works of Val Nolan Jr., who studied songbirds in addition to the junco: in particular the prairie warbler, *Dendroica discolor*. This site was originally compiled and organized by Eric Snajdr, Nicole Gerlach, and Ellen Ketterson.

Context Statement




This document was generated as part of a long-term biological research project on a songbird, the dark-eyed junco, conducted by the Ketterson/Nolan research group at Indiana University. For more information, please see IUScholarWorks (<https://scholarworks.iu.edu/dspace/handle/2022/7911>).




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HOW OLD IS YOUR NESTLING?

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	Day 0 (Hatch Day) <ul style="list-style-type: none">• Avg. mass: 2.5 g (1.7-3.0)• Avg. tarsus: 6.8 mm (5.5-7)• Fuzz may still be wet/clumped• Neck very skinny• Skin kind of “wrinkly”
	Comparison of D1 (front) and D0 (back)
	

	<p>Day 1</p> <ul style="list-style-type: none"> • Avg. mass: 3.8 g • Avg. tarsus: 7.5 mm • Neck more robust • Skin usually taut over belly
	<p>Comparison of Day 2 (L) and Day 3 (R)</p> <p>Day 2</p> <ul style="list-style-type: none"> • Avg. mass: 4.9 g • Avg. tarsus: 9.5 mm • Feather tracts not present or only barely visible • Wing feathers not present or only barely visible
	<p>Day 3</p> <ul style="list-style-type: none"> • Avg. mass: 7.3 g (5.3-9.6) • Avg. tarsus: 12.5 mm (9-14) • Feather tracts on belly and buds of wing/tail feathers visible, look “scaly”
<p>(no picture)</p>	<p>Day 4</p> <ul style="list-style-type: none"> • Avg. mass: 8.4 g • Avg. tarsus: 14.5 mm






Day 5 (and cowbird)

- Avg. mass: 12.2 g
- Avg. tarsus: 15.6 mm
- Eyes starting to open/slitted



Day 6

- Avg. mass: 14.0 g (12-16)
- Avg. tarsus: 17.8 mm (15-19)
- Legs look like adult legs
- Feather tips on wings not (or only *barely*) erupted
- Belly feather tracts fuzzy but not fully covering belly

		<p>Day 7</p> <ul style="list-style-type: none"> • Avg. mass: 15.5 g • Avg. tarsus: 19.7 mm • Wing feather tips erupted into brush tips • Body/head feathers starting to get longer & softer
		<p>Day 8</p> <ul style="list-style-type: none"> • Avg. mass: 16.3 g • Avg. tarsus: 20.5 mm • Wing feathers still mostly in sheaths, but have teardrop-shaped tips • Body feathers fluffy but not fully covering • Tail feathers visible, but small and still in sheaths
(no picture)		<p>Day 9</p>
		<p>Day 10</p> <ul style="list-style-type: none"> • Avg. mass: 16.8 g • Avg. tarsus: 21.8 mm • Avg. wing: 45 mm • Avg. tail: 13 mm



Day 11

- Avg. mass: 17.5 g (15.5-19.5)
- Avg. tarsus: 21.8 mm (19.5-22.5)
- Avg. wing: 51 mm
- Avg. tail: 18 mm
- Wing/tail feathers may still be partly in sheaths



Day 12

- Avg. mass: 17.8 g
- Avg. tarsus: 21.8 mm
- Avg. wing: 55 mm
- Avg. tail: 21 mm
- Feathers typically fully erupted & covering entire body

Day	Mass (g)	Tarsus (mm)	Wing (mm)	Tail (mm)
0	2.5	6.8		
1	3.8	7.5		
2	4.9	9.5		
3	7.3	12.5		
4	8.4	14.5		
5	12.2	15.6		
6	14.0	17.8		
7	15.5	19.7		
8	16.3	20.5		
9				
10	16.8	21.8 (full size)	45	13
11	17.5	21.8	51	18
12	17.8	21.8	55	21

Note: Days prior to D9 represent average masses for nestlings at mid-day/early afternoon.