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Authors: McNair, Douglas B., and Nisbet, I. C. T.

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COMMENTARY

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MOVEMENTS OF JUVENILE BLACKPOLL WARBLERS PRIOR TO AUTUMN MIGRATION IN NEWFOUNDLAND

Douglas B. McNair¹ and I. C. T. Nisbet²

¹35 Rowell Road, Wellfleet, MA 02667 ²I. C. T. Nisbet & Company, 150 Alder Lane, North Falmouth, MA 02556

Mitchell et al. (2010) reported that juvenile Blackpoll Warblers (*Dendroica striata*) raised in northwestern Newfoundland moved generally toward the southeast during the post-fledging period. They concluded (p. 651) that this finding failed to support their prediction from the migratory-commencement hypothesis. Their basis for this prediction (p. 645) was as follows: "We predicted that if meso movements represent initial migratory displacements, these moves should be oriented to the southwest at each study site, parallel to the known axis of migration (Richardson 1972)."

The article by Richardson (1972) summarized his radar studies of migration over Nova Scotia and New Brunswick, covering an area that extended east of Cape Breton Island (to 58° W), almost as far east as the longitude of the study area of Mitchell et al. (49° 47′ N, 57° 16′ W) in Newfoundland. Richardson did not report a single "axis of migration." His summary statement was the following: "In addition to the dense SW movements and the less dense reverse flights, movements to the SE and [word omitted] were also very common. Both passerines and shorebirds were commonly involved." The remainder of the article indicated that the word omitted from this passage was either S or SSE. Richardson did not identify the passerines involved in the SE movements in his 1972 article, but, from a variety of other lines of evidence, he identified them as primarily Blackpoll Warblers in several subsequent papers in major ornithological journals (Richardson 1976, 1978, 1980),. The transoceanic migration of the Blackpoll Warbler, in which it departs SE or SSE from southeastern Canada and the northeastern USA, crosses the western North Atlantic Ocean and makes landfalls in the West Indies and South America, has been abundantly documented in

other literature. It was referred to in the most recent monograph on the species (Hunt and Eliason 1999), the most recent reviews of its migration (Nisbet et al. 1995, Baird 1999), and the most recent book on the migration ecology of birds (Newton 2007). Additional supporting evidence has been supplied by recent field studies in the Caribbean (Latta and Brown 1999, McNair et al. 2002a.b).

The distance from southern Newfoundland over the western North Atlantic Ocean to northern South America is only about 200 km longer than that from Sydney, Nova Scotia, so a nonstop flight from Newfoundland is well within the capabilities of the Blackpoll Warbler. We do not have a strong hypothesis about the species' direction of migration from Newfoundland (Nisbet 1970), but Richardson (1972, 1980) stated that he observed SE/SSE departures of passerines at his easternmost radar station (Sydney, Nova Scotia), although the densities were not as high as those at the stations in New Brunswick and central Nova Scotia where Blackpoll Warblers are numerous during autumn migration (also coastal southwestern Nova Scotia; Davis 2001, Crewe et al. 2008, Bird Studies Canada 2011). Many Blackpoll Warblers raised in northwest Newfoundland might initially migrate southwest to Nova Scotia, New Brunswick, or New England before heading southeast on transoceanic migration, but the findings of Mitchell et al. (2010) that juvenile Blackpoll Warblers move southeast from northwestern Newfoundland during the post-fledging period are fully consistent with the migratorycommencement hypothesis. Indeed, they provide new evidence that Blackpoll Warblers move toward their ultimate destination in the post-fledging period, regardless of the actual route they take subsequently to get there. The post-fledging period of Mitchell et al. (2010) extended into late August (to 26 August), when Blackpoll Warblers initiate migration in the Maritime Provinces (Nisbet 1970). We suggest that Mitchell et al. (2010) reinterpret their data in the context of the Blackpoll's known orientation to the southeast during autumn migration and reconsider the migratory-commencement hypothesis, which we believe they have inappropriately rejected.

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¹E-mail: dbmcnair@gmail.com

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LITERATURE CITED

- BAIRD, J. 1999. Returning to the tropics: the epic autumn flight of the Blackpoll Warbler, p. 63–78. *In* K. P. Able [ED.], Gatherings of angels: migrating birds and their ecology. Cornell University Press, Ithaca, NY.
- BIRD STUDIES CANADA [ONLINE]. 2011. Nature counts: Canadian migration monitoring network. http://www.birdscanada.org/birdmon/default/popindices.jsp (9 April 2011).
- CREWE, T. L., J. D. MCCRACKEN, P. D. TAYLOR, D. LEPAGE, AND A. E. HEAGY. 2008. The Canadian migration monitoring network—réseau canadian de surveillance des migrations: ten-year report on monitoring landbird population change. CMMN-RCSM Scientific Technical Report 1. Bird Studies Canada, Port Rowan, Ontario.
- DAVIS, A. K. 2001. Blackpoll Warbler (*Dendroica striata*) fat deposition in southern Nova Scotia during autumn migration. Northeastern Naturalist 8:149–162.
- Hunt, P. D., and B. C. Eliason. 1999. Blackpoll Warbler (*Dendroica striata*), no. 431. *In A. Poole and F. Gill [Eds.]*, The birds of North America. Birds of North America, Inc., Philadelphia.
- LATTA, S. C., AND C. BROWN. 1999. Autumn stopover ecology of the Blackpoll Warbler (*Dendroica striata*) in thorn scrub forest of the Dominican Republic. Canadian Journal of Zoology 77:1147–1156.
- McNair, D. B., E. B. Massiah, and M. D. Frost. 2002a. Ground-based autumn migration of Blackpoll Warblers at Harrison Point, Barbados. Caribbean Journal of Science 38:239–248.

- McNair, D. B., F. Sibley, E. B. Massiah, and M. D. Frost. 2002b. Ground-based nearctic landbird migration during autumn in the eastern Caribbean, p. 86–103. *In F. E. Hayes and S. A. Temple [EDS.]*, Studies in Trinidad and Tobago ornithology honouring Richard ffrench. Occasional Papers of the Department of Life Sciences, University of the West Indies, St. Augustine, Trinidad and Tobago.
- MITCHELL, G. W., P. D. TAYLOR, AND I. G. WARKENTIN. 2010. Assessing the function of broad-scale movements made by juvenile songbirds prior to migration. Condor 112:644–654.
- Newton, I. 2007. The migration ecology of birds. Academic Press, London.
- NISBET, I. C. T. 1970. Autumn migration of the Blackpoll Warbler: evidence for long flight provided by regional survey. Journal of Field Ornithology 41:207–240.
- NISBET, I. C. T., D. B. McNair, W. Post, and T. C. Williams. 1995. Transoceanic migration of the Blackpoll Warbler: summary of scientific evidence and response to criticisms by Murray. Journal of Field Ornithology 66:612–622.
- RICHARDSON, W. J. 1972. Autumn migration and weather in eastern Canada: a radar study. American Birds 26:10–17.
- RICHARDSON, W. J. 1976. Autumn migration over Puerto Rico and the western Atlantic: a radar study. Ibis 116:172–193.
- RICHARDSON, W. J. 1978. Reorientation of nocturnal landbird migrants over the Atlantic Ocean near Nova Scotia in autumn. Auk 95:717–732.
- RICHARDSON, W. J. 1980. Autumn landbird migration over the western Atlantic Ocean as evident from radar. Acta International Ornithological Congress 17:501–506.