

HERMIT WARBLER OR HERMIT X TOWNSEND'S HYBRID??

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Andrew Block's and Anne Connor's Thanksgiving Day discovery of a possible Hermit Warbler (*Dendroica occidentalis*) at Jones Beach State Park (Block and Connor 2003) was one of the most exciting bird finds in New York State in 2002. It also became one of the most discussed and controversial birds of recent years. However, unlike many rarities the debate was not over whether a more common bird had been misidentified as a rarity or the bird's origins as a genuine stray, as those points were never in question. Instead, almost immediately the question was raised: Is it a Hermit Warbler or is it a hybrid Hermit x Townsend's Warbler? If it is the latter what is to be done with the record? Hermit Warbler has never been recorded in New York and while Townsend's Warbler (*D. townsendi*) has been recorded a number of times (Sherony 1998), what do you do with a hybrid between the two? How do you list it? The well-known and oft seen hybrids between Blue-wings and Golden-wings, namely "Brewster's" and "Lawrence's", are not on the official NYS checklist, though both are discussed under Golden-winged Warbler (*Vermivora chrysoptera*) in the recent New York State books (Bull 1974, Confer 1998).

This brief note is not an effort to firmly answer the question of this bird's identity and how to treat it on the New York list, but rather is a summary of some of the debate.

Hermit and Townsend's Warblers are closely related species of the coniferous montane forests of western North America (Dunn and Garrett 1997). Together with the widespread Black-throated Green Warbler (*D. virens*) of the East and the Golden-cheeked Warbler (*D. chrysoparia*) of Texas, they form a superspecies sometimes referred to as the *virens* group. Of the four species in the group only the Hermit and Townsend's Warblers have normal breeding ranges that come into contact. Rohwer and Wood (1998) described three areas in Washington and Oregon where the two species meet and hybridize extensively. As is typical of hybrids Hermit x Townsend's Warbler crosses (sometimes called HETO Warblers) can show a varied mix of characters from the two parental species (Jackson et al. 1992, Rohwer and Wood 1998, Eckert 2001). Both parental species are long distance migrants that winter mainly in Mexico and Central America with a history of documented vagrants in the East (American Ornithologists' Union 1998).

As word of the Jones Beach bird spread, which it did very quickly thanks to the Internet, many rushed to see it. Though the bird frustrated some, for most it was very cooperative and allowed close approach. Soon excellent photographs

by Seth Ausubel, Kevin and Jay McGowan, and Angus Wilson were available on the Web. Almost immediately it was noted the bird did not fit the illustrations of Hermit Warbler in the standard field guides. The back color, the extent of yellow on the breast, black streaking on the flanks and other subtle plumage characters were pointed to and the debate was on. There was also debate as to the age and sex with opinions mainly divided between adult female versus first fall male. The question of parentage, age and sex is a difficult one to resolve because most of the published photographs of HETO Warblers are based on breeding -plumaged male birds photographed in or near the hybrid zones (Eckert 2001). Similarly, the published detailed plumage analyses and hybrid indices (Rohwer and Wood 1998, Jackson et al. 1992) were also based mainly on adult specimens from the hybrid zones. In an email to NYSBIRDS-L the day after the discovery Shai Mitra pointed out many of the difficulties of computing a "hybrid index" for the Jones Beach bird based on the photographs, as excellent as they were.

In an effort to resolve some of the questions about the Jones Beach bird Manny Levine and I and then Tom Burke and I spent a number of hours looking at the 200-300 Hermit Warbler specimens in the ornithology collection of the American Museum of Natural History (AMNH). Let me first point out there are no specimens in the AMNH collection labeled Hermit x Townsend's hybrid, but this is not really a problem. When trying to decide if an individual bird is a hybrid, the first step has to be to determine what is the range of variation of the parental species? We often forget that there can be considerable variation in individual birds and most birds "do not look like the pictures in the field guides" when studied closely and a vagrant such as this bird is always studied very closely. In comparing the photographs with the specimens we primarily looked at birds collected in breeding areas far from the known hybrid zones. We first decided, based on the specimens, that the Jones Beach bird was probably a first fall male. We also quickly found that many of the plumage characters cited as possibly indicating a hybrid, could be found in at least some Hermit Warbler specimens, with the exception of extensive yellow on the breast, especially extending well below the black bib. In that detail, only one specimen came close to matching the Jones Beach bird. That bird was an immature male collected in California on 21 Aug 1896. Add the locale and the date to the extensive yellow on the breast and its broad, dusky flank streaks and it would seem the bird might have been a migrant from the hybrid zones to the north.

Since few of us here in the East have much experience with Hermit Warblers or their hybrids, I asked Sheila Fitzpatrick, a transplanted New Yorker now living in Oregon, if she could solicit opinions from West Coast birders. I received responses from over half a dozen West Coast birders and they were unanimous in stating that if they encountered this bird in the West they would probably call it a hybrid. All cited the extent of yellow on the breast below the black bib and many pointed to the greenish back color, though they did not all agree as to the age or sex of the bird. Most pointed out the great variability in HETO Warblers.

Thus, the consensus seems to be the Jones Beach bird had a mixed ancestry though no one can say for sure how far back in its lineage a Townsend's Warbler had occurred. In case you think the question has been definitively settled, let me also cite a speculation raised by Sy Schiff in an email to NYSBIRDS-L. Schiff asked the question: What would this bird look like as an adult male next spring? Would a full black bib completely or nearly completely obscure the yellow breast thus making the bird perhaps indistinguishable from an adult male Hermit Warbler? Or, as Manny Levine countered in an email, would there be enough Townsend's genes for a yellow wash to be visible extending below the bib?

None of the above scenarios has addressed the possibility that we don't completely know the full extent of variation in Hermit Warblers. In other words, might a rare individual Hermit Warbler show this amount of yellow for some genetic or developmental reason other than having a Townsend's Warbler in its ancestry? Most hybrids are after all rare. In an email Shai Mitra asked the question as to what the simplest assumption is in this case: Is the bird in question an aberrant Hermit Warbler (the species it most resembles) or is it a hybrid? For that matter, another question is: How pure does an individual have to be in a species that is known to hybridize extensively to be considered a member of one of the parental species? Mitra in his email cited an otherwise normal looking Golden-winged Warbler netted and banded on Fire Island that had a "wedge of yellow" below its black bib, indicating a Blue-winged Warbler (*V. pinus*) in its ancestry. Most of us have encountered Blue-wings or Golden-wings that gave the wrong song or had some other indication of a mixed ancestry that did not rise to the level of labeling the bird a "Brewster's Warbler" or a "Lawrence's Warbler". If it looks like a Blue-wing but sings like a Golden-wing, what do you call it?

Finally, if it is decided the Jones Beach bird is not a "pure" Hermit Warbler, but rather some degree of HETO Warbler (as seems likely), what do you do with it as far as the New York State list is concerned or your personal list? Do you put Hermit Warbler on the New York list since the bird seemed to mostly be a Hermit Warbler? Do you add some sort of asterisk indicating its questionable parentage? Do you leave Hermit Warbler off the list? Do you put this record under Townsend's Warbler since that species is already on the list? Do you flip a coin?

I warned at the outset of this note no definitive answers would be given here. I can think of no other recent bird record in New York that has prompted as much debate and reading of the literature as this lone warbler. Such debate and research is a good thing and we can thank this vagrant warbler for stimulating it. I am happy the job of deciding how to answer the many questions raised by this bird does not fall to me. The members of NYSARC will have to wrestle with these questions and make the final decision. The one thing they can be sure of is that no matter what they decide there will be some very unhappy New York birders. Interestingly, shortly after the Jones Beach bird disappeared a bird identified as a female Hermit Warbler was found in the Chicago area. Perhaps the members of

NYSARC will take some solace in the thought that they will not be the only ones wrestling with “to be or not to be” Hermit Warbler questions.

Acknowledgments

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Literature Cited

- American Ornithologists' Union. 1998. Check-list of North American Birds, 7th edition. American Ornithologists' Union, Washington, DC.
- Block, A. and A. Connor. 2003. Possible Hermit Warbler (*Dendroica occidentalis*) a First for New York State, Jones Beach State Park, Nassau County, NY 11/28/02 to 12/1/02. *Kingbird* 53(1):1-4.
- Bull, J. 1974. Birds of New York State. Doubleday/Natural History Press, Garden City, NY.
- Confer, J. L. 1998. Golden-winged Warbler. in Bull's Birds of New York State, E. Levine (ed.). Cornell University Press, Ithaca, NY.
- Dunn, J. and K. Garrett. 1997. A Field Guide to Warblers of North America. Houghton Mifflin, Boston, MA.
- Eckert, T. 2001. A HETO Warbler Showcase: Hermit/Townsend's Warbler Hybrids. *Birding* 33(4):342-350.
- Jackson, W. M., C. S. Wood and S. Rohwer. 1992. Age-specific Plumage Characters and Annual Molt Schedules of Hermit Warblers and Townsend's Warblers. *Condor* 94:490-501.
- Rohwer, S. and C. Wood. 1998. Three Hybrid Zones Between Hermit and Townsend's Warblers in Washington and Oregon. *Auk* 115(2):284-310.
- Sherony, D. 1998. Townsend's Warbler. in Bull's Birds of New York State, E. Levine (ed.). Cornell University Press, Ithaca, NY.