

Apparent Tool Use by a Black-and-white Warbler (*Mniotilta varia*)

Paul Jadot

paul.jadot@mebttec.com

On April 25, 2022, I took a series of sequential photographs of a Black-and-white Warbler (Mason Farm Biological Reserve, Chapel Hill, NC) when it was grooming, foraging, and feeding. During foraging, it clung to two arboreal vines, poking the bark repeatedly with its bill. Several sequential photographs were taken, two of which showed the bird holding a twig positioned lengthwise in its bill.

Bill Newmark Ph.D. (research curator and conservation biologist in the Natural History Museum of Utah) and I authored a manuscript entitled: Apparent Tool Use by a Black-and-white Warbler (*Mniotilta varia*). Peer-reviewed, it was accepted for publication in *The Florida Field Naturalist*, a quarterly scientific publication by The Florida Ornithological Society.

Tool use by birds from more than 30 families has been documented worldwide. For example, certain nuthatches uncover invertebrates by prying bark scales from tree trunks. Much like a nuthatch, the Black-and-white Warblers easily creep along tree trunks to locate insects. However, like many other wood-warblers it also forages insects from branches and leaves. It is our assumption that the bird used the twig to uncover insects or to force invertebrates out of crevices.

Photographs show the bird feeding on a caterpillar. Because of the large size of the caterpillar, it is likely that the Black-and-white Warbler gleaned the caterpillar from the surface of the bark rather than using the twig to pry the bark up or locate and probe for the caterpillar in a crevice in the bark. Regardless, we believe that these sequential photographs provide highly suggestive evidence for tool use by the Black-and-white Warbler. This indirect evidence for tool use by the Black-and-white Warbler is, as far as we are aware, the first such record for a wood-warbler (Parulidae).

The full article can be viewed at:

https://www.researchgate.net/publication/369880768_Apparent_tool_Use_by_A_black-And-white_warbler_Mniotilta_varia#fullTextFileContent



*Black-and-white
Warbler, 25 April
2022, Orange
County, NC.
Photograph by
Paul Jadot.*