



Recognition of avian sibling species

Author: Harper, David

Source: The Auk, 122(4) : 1291-1292

Published By: American Ornithological Society

URL: [https://doi.org/10.1642/0004-8038\(2005\)122\[1291:ROASS\]2.0.CO;2](https://doi.org/10.1642/0004-8038(2005)122[1291:ROASS]2.0.CO;2)

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Letters

The Auk 122(4):1291–1292, 2005
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Printed in USA.

Recognition of avian sibling species.—Sibling species are populations that are similar in appearance but reproductively isolated even when sympatric (Ridley 2003). Winker (2005) argued that Mayr (1999) was wrong to name Gilbert White (1720–1793) as the first person to recognize avian sibling species. Instead, he nominated William Derham (1657–1735) for suggesting that there were three rather than one British breeding species of “willow-wren” (now genus *Phylloscopus*), and two species of “locustella” similar to Grasshopper Warbler (*Locustella naevia*) (Derham 1718). Here, I argue that Winker (2005) overstated his case, and that John Ray's (1628–1705) contribution to the recognition of sibling species has been overlooked.

Derham (1718) provided no details about his suggested sibling species, and so crucial information probably died with him. White (1789), however, provided enough detail (including size, song, and timing of spring arrival) to exclude any confusion caused by intraspecific variation, and for us to identify his three “willow-wren” species as Chiffchaff (*Phylloscopus collybita*), Willow Warbler (*P. trochilus*) and Wood Warbler (*P. sibilatrix*). Similarly, his account of what he believed was a second “locustella” species (29 May 1769; White 1789) compared it (probably the still ill-defined Reed Warbler [*Acrocephalus scirpaceus*]) with the Grasshopper Warbler (the original “locustella”).

Winker (2005) emphasized White's report (18 April 1768) of failing to procure a specimen of the “largest willow-wren,” but omitted his subsequent success (17 August 1768; White 1789). Similarly, Winker's statement that “what the presumed third species may have represented is unclear” ignored the August letter's “clear, concise and evocative description of a Wood Warbler” (Moss 2004).

Winker (2005) reported that “a Mr. Markwick” was unable to use White's descriptions to identify multiple species of “willow-wren.” Some contemporaries, however, managed to do so (Dance 2003). One was George Montagu (1753–1815), who distinguished the sibling species of Hen Harrier (*Circus cyaneus*) and Montagu's Harrier (*C. pygargus*) in 1803 (Moss 2004). Moreover, William Markwick (1739–1813) may not have been the best judge, being more interested in wildfowl and waders than woodland passerines (Slatter 2004). His writings revealed how difficult bird identification was at the time (e.g. his tendency to “lump” rather than “split” species). For instance, Green Sandpipers (*Tringa ochropus*) and Wood Sandpipers (*T. glareola*)

were probably “varieties of the same species, perhaps male and female” (Markwick 1798). Although sometimes said to be “great friend[s]” (e.g. James 1996), Markwick and White probably never even corresponded (Slatter 2004). Markwick owned a copy of White (1789), and some of his comments on the book were included by John White (Gilbert's nephew) in White (1802).

Winker (2005) failed to demonstrate that Derham did enough, or that White did too little, to be credited with recognizing sibling species of *Phylloscopus*. Neither Derham nor White clearly distinguished sibling species of “locustella.” This is ironic, because the obvious candidate, Savi's Warbler (*L. lusciniodes*), had its own vernacular English names (Wallace 2004). As with Markwick's sandpipers, distinguishing between intra- and interspecific variation remained a problem, one tackled with zeal by Montagu (1802).

Both Derham and White were scientific and theological disciples of John Ray, who had defined species as groups of individuals that could interbreed successfully only among themselves. Thus, organisms could look very similar and yet belong to different species (Ray 1682). These views surely helped to start a debate about species differences to which Derham, White, Markwick, Montagu, and others contributed, research that continues as the study of differences between extremely similar “cryptic species” (e.g. Isler et al. 2002).—DAVID HARPER, *School of Life Sciences, John Maynard Smith Building, University of Sussex, Falmer, East Sussex BN1 9QG, United Kingdom. E-mail: david@sussex.ac.uk*

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Received 17 June 2005, accepted 10 July 2005