In 1962, he presented a paper at the 13th International Ornithological Congress on "The Return to the Same Tropical Winter Quarters of Northern Migrants." This paper, given in 1965, was the result of several trips to the Yucatan Peninsula, Republic of Honduras and British Honduras to band North American bird migrants and endemics.

The Walter P. Nickell Memorial Fund has been set up at Central Michigan University, Mt. Pleasant, Michigan 48858. This fund will be used to provide financial assistance to students pursuing careers in natural history. The Center for Cultural and Natural History at CMU will be the repository for many of his scientific information and most of his ornithological research data.

If anyone wishes to correspond with Mrs. Walter P. Nickell, she is residing at: 101 Inn Lane, Apt. 213, Oak Ridge, Tennessee 37830

The Editor

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FURTHER SPECULATIONS ON MYRTLE WARBLERS IN WINTER PLUMAGE

Erma J. Fisk

The more I try to age and sex my winter birds, the more I search the literature, the more letters I get in answer to my queries for the Bird Banding Laboratory's projected updating and expansion of Wood's manual, the more I realize how little we all know, and how important it is that banders really study their birds and take notes that can be checked against possible returns. Take Myrtle warblers, for instance. How many thousands are banded each year! But what do we know about them?

I took Myrtle warblers (Dendroica coronata) this winter when banding was dull. To guide me I had Robbins A Guide To The Ageing And Sexing Of Wood Warblers In Fall (1964), EBBA News (Vol 27, No. 5) and Weske's Preliminary Speculations Of The Sexing Of Myrtle Warblers In Winter Plumage, 1961 sent me by the BBL. With two such authorities I should get along.

Well, as we all know, Myrtles don't come in twos and threes, they come in netfulls, and you don't have time to study them often. I didn't want to close my nets because of Returns, which was how I hoped to find out something (maybe) so I examined at random only about 300. I used a criteria of

Forehead, rump and shoulder colors.
The width of the black centers of the upper tail coverts, and the color of the edgings to these.
The width of the breast and flank streaks.
The amount and color of the yellow at the shoulder.
The black, if any, of the facial pattern.

I have had 24 Returns from two, three and four past years. I examined 27 specimens of winter birds at the University of Miami, all but two of which corroborated my suppositions. (I thank Dr. Weske for the sentence in his paragraph on museum specimens that "Determination of sex by dissection is frequently difficult on immature birds." He also had two birds that didn't agree with his findings.) I came up with one Fact and three Suppositions, reinforced by much of Robbins and Weske, but not always agreeing with them.

THE FACT Based on my Returns, females cannot be aged, older birds showing no distinction in plumage from younger. As Robbins states, those with edges to the upper tail coverts brownish-grey are females. Hoever, these edgings on winter birds are often badly worn, so a bird lacking the brownish-gray is not necessarily female and must be judged by other characteristics.

I found females to be brown birds with brown rumps, brown or greyish shoulders, narrow to medium black centers to the upper tail coverts (there is an overlap here with some males) and narrow and sometimes indistinct streaks on the breast and flanks. Usually, but not always, their wing lengths are below 70 mm. Unlike Weske I did not find that I could separate the sexes by the line of demarcation, or its lack, in the breast feathers. I pulled a series, glued them on a card and submitted them to my ornithological visitors. They were hesitant to claim a difference. Unlike Robbins I found I could not differentiate males by blue foreheads as I observed almost none. This is not an absolute statement, as on my early-winter birds I did not check the foreheads, but it applies to at least the last 150. Only four showed blue. These I

took to be ASY males. I could not differentiate by the color of wingbars. The preponderance of these were white. Some were buffy, as many or more what I termed "dirty white". Birds I presumed to be older males had the primary coverts number 2-4 buffy tipped, the rest white.

I divided my presumed males into three classes, which the two students working with me on Sundays were also able to identify.

SUPPOSITION 1 HY-SY Male: Birds with gray rumps washed with brown; upper tail covert centers and flank streaks intermediate in width; brown faces; wing length 70+. There is an overlap here with birds I considered female, so a certain number were listed Unknown.

SUPPOSITION 2 AHY Male: Birds that are bluish-gray, with bluish-gray rumps, broad black centers to the upper tail coverts, fairly broad and distinct breast and flack streaking, wings 70-74 mm., some black in the face.

SUPPOSITION 3 ASY Male: Birds crisply colored in blue, gray, black and white. Brown on the mantle only; upper tail covert centers very broad, flank streaks black and broad, streaking on the breast strong, yellow patch at shoulder deep in color; white about eye in strong contrast to black of facial pattern.

Characteristics I did not find useful:

Wing bars; see above

Size and intensity of yellow at shoulder. This appears to be an individual characteristic which can be almost lacking in some females, even a three or four year old one. Usually strong in older males.

The dark shaft marks in the under tail coverts. My hope three years ago was that these might indicate an immature bird, but I have been unable to correlate their presence or absence with either age or sex.

Step up, Ladies and Gentlemen from Long Point to Manomet, from Powdermill to Kiptokeke; Dottie Mendinhall, Gladys Cole, Island Beach and points north. How do my suppositions fit with the birds you get? Are the upper tail coverts worn when fall birds reach you? Do you get many blue foreheads? In all males, or only the very strongly colored ones? What proportion of older birds do you get? What color are your mouths? Mine are pink or yellow, even on ASY birds. I find incompletely ossified birds until mid-December and have had a few even later in that month. I had one complete screwball in molt on Jan. 13, with zero ossification.

I often have little to work on here in the winter but Myrtles. I'd be glad to test out any of your speculations.

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THE MANUAL FOR AGEING AND SEXING

When do species nest in your area? This may affect eye color, mouth, bill and leg color. It will affect the timing of the postjuvenal and postbreeding molts and so whether you record a bird as HY, SY, or AHY. The literature is rich in information on nest building, clutches, behavior at the nest, but it is astonishingly meager in dates. If you band where there are local breeding birds you have a marvelous opportunity as the young and the adults are caught, particularly if they return within a few days, or a few weeks. How long is the postjuvenal molt? Is it partial or complete? What parts molt first? How long does the molt continue? What color changes does it bring? The same questions apply to the postbreeding molt. You would be amazed at how little information there is on these.

What about eye color? It is easy to accept passively what we read in books - i.e. adult woodpeckers have red eyes, mockingbirds have clear yellow eyes, towhees' eyes are red, or white, catbirds' eyes are brown (until January 1, when they become AHY black) But are they? Adult woodpeckers are returning to traps with brown eyes; five years of retaken mockingbirds have taught me that this species can safely be aged only with the juvenile gray (see the spring 1973 issue of Bird Banding), that the various gradations of green and yellow and orange are individual characteristics which have nothing to do with age. One respected bander says immature Cedar Waxwings have brown eyes, adults have red. Another claims the reverse.

If the alula edge can distinguish the Black-throated Blue immature from the adult, can this characteristic be used for other warblers? The edging of the alula of a Carolina Wren can differ in width. Is there a reason, or is this an individual variation? Is this a character that can be used? My ovenbirds return in spring some with a hint of wingbars, some without. Are these latter SY birds whose feathers have worn, or are they ASY birds? I never noticed this before, I'll have to wait for fall to find out (maybe).