

## A BUNTING IN THE HAND

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When someone describes a mature male Painted Bunting—a small sparrow-sized bird with a blue head, red eye-ring, bright emerald green back, purplish crimson rump, bright red underparts, claret-colored wings and tail—it seems very improbable. When you see one in the bush there's no mistaking it. But there is no thrill quite like holding one in the hand.

During the six summers, 1973 through 1978, we have had a bunting in the hand 445 times. These close encounters have involved the 88 individual birds we have banded. Of these only 35 have never been in the hand again; the other 53 have shown up frequently. One colored male banded in 1973 has been back every year since and in the nets several times each summer. He has lived at least eight summers—the record is ten!

All buntings are green when they leave the nest, and the females remain green, with yellow-washed underparts. (Sometimes underparts turn a bit rosy in old females.) The question of when males become fully colored has been debated for a long time. They are certainly green through the summer after hatching. We have observed green males singing and in breeding condition, but we do not know how successful they are at finding a mate. Erma Fisk (Wintering populations of Painted Buntings in southern Florida. *Bird-Banding* 45:353-359) has banded many wintering buntings in Homestead, Florida. She says green males that come to her in the fall of the year they are hatched return to her colored the following fall. This would indicate that males get their color at the molt after the first breeding season. Indeed, we banded two green males in breeding condition on 22 and 23 July 1977, and they were both back on 15 September in full color.

Of course it is only in the hand that it is possible to tell for sure whether a green bird is a male or a female. During the breeding season the gonads of male birds increase in size and cause a cloacal protuberance, which the females do not have. The females of most species have a brood patch—a vascular, warm, bare region on the breast—which can be observed by blowing the feathers apart. The males of some species, woodpeckers for instance, also have a brood patch, so this is not always a definitive characteristic, but it works for buntings. Birds whose sex is determined by these characteristics we call "proven" males and females. The breeding season only lasts from May through August, however, and first-year birds do not breed anyway. For nonbreeding birds we must resort to other characteristics that are less than definitive. Green males usually have longer wings than females, and careful measurement can indicate which is which. This is not entirely accurate because some males are small and some females are large. There is considerable overlap in the middle range where we must say "sex unknown."

Young birds have incompletely ossified skulls for several weeks and even months after hatching. A careful examination with a magnifying glass through the relatively transparent skin on the head will tell whether a bird has been recently hatched.

Obtaining this kind of information about birds is one of the reasons for taking part in the U.S. Fish and Wildlife Service's program of bird-banding. The numbered aluminum band gives the bird an unmistakable identity wherever it goes and for as long as it lives. Of course a small bird like a Painted Bunting must be in the hand for the number to be read, so we put two colored bands on each bird in addition. Now we can recognize an individual through binoculars. Although we have had many of our birds return to us, we are still waiting for a report from someone who has seen our color-banded birds along the way.

*113 West 23rd Street Long Beach, Southport, N.C. 28461, 12 February 1979.*

\*Deceased 21 April 1980.