

Mutations In Ringneck Doves

By W.F. HOLLANDER and W.J. MILLER

What's a mutation? Literally it means simply a change. Change from what? Well, ordinarily we mean a sudden hereditary change from the original type to something new, not existing previously. In pigeons, apparently all the profusion of colors and forms found in domestication are based on mutations from the original wild blue Rock Pigeon (*Columba livia*).

What's a ringneck dove? That's one of several common names for the domesticated or Barbary dove, which has a "laughing" call as part of its repertoire. The scientific name of its species is *Streptopelia risoria* (*risoria* means laughing). Typically this dove has a blond or fawn color with a black collar or ring around the back of the neck. But there is a white variety (often called "sacred white") in which the ring does not show.

What about mutations in ringneck doves? Well, first we should know what is the original type. A study of museum specimens of wild doves from all over the world has shown that our domestic species is most like the "rosy grey turtle dove" (*Streptopelia roseogrisea*) of the Red Sea area. But the wild ones are much darker in color than the domestic blonds.

We may speculate that the turtle doves mentioned in the Bible probably were *Streptopelia roseogrisea*. Since they were commonly used for sacrifices, they would probably have been kept in cages, and the most likely next step would be to domesticate them. Over the centuries, sometime a blond mutation appeared and caught the breeder's eye. As it multiplied, the new was kept and the old was discarded. Similarly the white mutation must have been attractive and has been multiplied. Curiously, both of these color mutations are sex-linked.

Two mutations in two thousand

years or more is a rather skimpy performance compared to the scores or hundreds in domestic pigeons. Well, ring dove breeders aren't nearly so numerous as pigeon breeders, they hold no shows and maybe they have been less interested in novelty. We do not believe that this species is less mutable, though that possibility has been considered.

Actually, some other mutations are known in the doves. In Japan in 1932, Tange reported a true albino type. In the United States, a "silky"-feathered mutation was reported in 1956. In recent years a "rosy" or "peach" colored mutant type has been advertised, originating around Cleveland, Ohio. Still more recently a pied coloration has been discovered in Maryland. Size differences are available, as well as some differences in voice. Looking under the surface, blood-type differences have been found.

For many years Dr. Oscar Riddle studied ringneck doves at the Carnegie Institute laboratory at Cold Spring Harbor on Long Island, New York. Then at the University of Wisconsin Dr. L.J. Cole and Dr. M.R. Irwin carried on genetical studies, especially involving species hybrids. But they are no longer active. Here at Iowa State University in Ames we are trying to carry on, and collect as many new types as possible.

Once we were told of black doves and we tried to buy them unsuccessfully. Probably they weren't black by mutation, more likely by shoe polish. Anyway, we keep hoping. Maybe a black one will show up naturally yet. Or something else, mutations are unpredictable things at best.

Maybe some day these attractive little doves will have a mutation craze like that which swept the parakeets in the past fifty years. Maybe there will be dove shows, even dove magazines.