

Proventricular Problems

by Sheldon Dingle

The more one learns about raising birds in captivity the greater the miracle seems if even one baby bird is hatched and grows to maturity. There are five classes of diseases that are constantly reducing the odds that a bird will even live in captivity, much less produce offspring. They are:

- A. Genetic disease, i.e., physical imperfections at birth.
- B. Nutritional disease, i.e., poor diet.
- C. Toxic disease, i.e., exposure to various poisons.
- D. Metabolic disease, i.e., poor biochemistry.
- E. Infectious disease, i.e., parasitism.

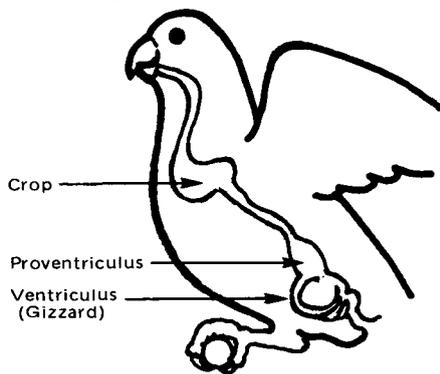
Don't despair, however. There are various ways to combat the diseases.

In this article we shall consider only a small portion of the Infectious diseases—parasitism. Parasitism can be broken down into five categories:

- A. Bacterial infections.
- B. Virus infections.
- C. Protozoan infections, e.g., Coccidiosis, Malaria.
- D. External parasites, e.g., Mites, Lice, etc.
- E. Worm parasites.

You may already know that there are more species of avian parasites than there are species of birds. Hence, we shall greatly reduce our focus and consider just one worm parasite—Proventricular Worm (*Dispharynx nasuta*).

The Proventricular Worm is so called because it infests the portion of the esophagus just anterior to the ventriculus or gizzard, where it burrows into the mucous membrane lining. Occasionally the worms are so numerous that the lining becomes inflamed and swollen so that food won't pass through and the bird becomes emaciated. Sometimes the worms penetrate the proventricular wall into the adjoining air sacs. The lesions, hemorrhage, and concurrent shock often kill the bird.

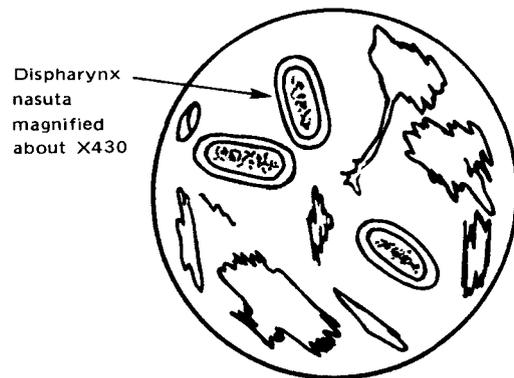


Once the bird is dead, a *post mortem* examination will reveal the parasite infestation. If you still have living birds, you may want to examine their feces microscopically for evidence of worm parasites. The mature worms lay eggs that are passed out of the bird in its droppings.

You can make arrangements to take a sample of fresh feces (still moist) to your veterinarian for examination. Or, if you have a microscope of about X100 and X400 powers, you may make your own examination. Clinical parasitology is highly technical but you can develop sufficient skill with your microscope to monitor your birds' droppings and greatly aid your parasite control program.

Slides are prepared by putting a small amount of feces on a slide. Add a drop of water and stir into a paste. Add enough water, one drop at a time, to have a light colored liquid. The sample on the slide should be thin enough to read newspaper print through. Place the slide under the microscope and examine it on low power. When you see something suspicious, examine it under high power.

You will see bits and pieces of vegetable matter, pollen, tiny insect parts, and other debris but the *Dispharynx* eggs will be unmistakable.

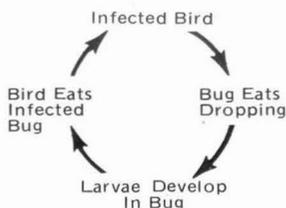


Of course, you may find eggs that are not *Dispharynx* and you will have to identify them to know how to treat the problem. The bibliography at the end of this article includes some valuable research books that can be of help.

When you find *Dispharynx* eggs in your birds' feces you can be sure you have a parasite problem. The first thing to do, of course, is to treat the infected bird with medicine. We are experimenting with several medicines but the results are not yet conclusive enough to justify a recommendation here. The dose of a medicine must be strong enough to poison the worms but not strong enough to poison the bird. The proper dose often lies on a point of balance — on this side it won't effect the worms; on that side it kills the bird. Take the infected bird to a veterinarian who will use medicine according to his skill and experience.

Inasmuch as the *Dispharynx* worm's reproductive cycle requires an intermediate host, the second thing you can do when you find an infestation is to break the cycle — eliminate the intermediate hosts. The cycle works thusly: When a bird is infected the worms lay eggs that pass out in the droppings. A bug eats

the droppings and worm eggs. The egg develops into an infectious larva in the bug. A bird eats the bug, larvae and all, and develops a heavier and heavier parasite burden as the larvae mature into adult worms.



If you can eliminate the intermediate hosts (all arthropods in this case) you preclude the proventricular worm problem in your birds. The key to eliminating the arthropods (sow bugs, millipedes, etc.) is to remove all debris from the cage floors and keep your aviaries dry. The bugs need places to hide and they need moisture to live.

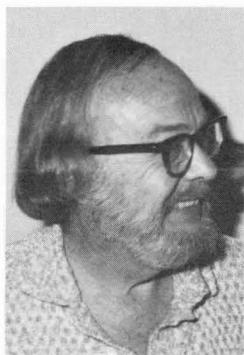
When you have eliminated the intermediate hosts and have dosed your infected birds with medicine, examine their feces. If, after three or four examinations at ten day intervals, you find no *Dispharynx nasuta* eggs, you may be fairly certain that particular problem has diminished ■

Sources:

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 Biester, H.E., and Schwarte, L.H., eds., *Diseases of Poultry*, 5th ed., Ames, Iowa State University Press, 1965.
 Noble, E.K., and Noble, G.A., *Parasitology*, 2nd ed., Philadelphia, Lea and Febiger, 1964.
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View from the Perch

by Russ Sutton



Russ Sutton

Most of our elected officials, and their appointees, believe it is necessary for them to make decisions for the masses of persons whom they represent. Here, in the United States and throughout the World there is a movement to establish a World Government wherein the United States would become one of many states and we the people would, to a great extent, be forced to comply with regulations established by others

than our elected representatives.

Are all the crisis we have been faced with during the past year, or so, steps in this direction? The oil and energy shortage? The wheat deal? The sugar shortage? I wonder. There is more to all this than meets the eye.

Are the efforts of the United States Department of Interior and The United States Department of Agriculture stepping stones in this direction? Why, last

fall, did a high government official say he would like to see the destruction of one half of the nation's pets (so the food consumed by them could be sent to Africa and Asia)?

Why did the USDA close a seed and feed dealer in Ft. Lauderdale, Florida, rationalizing that mice were contaminating the sacks, which in turn might transmit Salmonella to people? If the people are the Government, then why is it these bureaucrats, who are supposed to operate for our benefit, did not lend their support and expertise to eradicate the mice?

The view from here appears as if the tail is wagging the dog. How does it appear to you? Our representatives are not paying any attention to us. They go along their merry way, passing new laws day by day, week by week, month by month. All the letters and appeals fall on deaf ears. Why is it that individuals must organize and band together to raise funds and hire lawyers to protect our God given rights? These people in Washington D.C. are paid by us and are supposed to be working for us. Instead they are our adversaries. Even the State of California has to take the USDI to court in an effort to maintain their rights.

In these days of high interest rates, high property taxes, and inflated values, more and more persons are being forced out of private residences into apartments and condominiums. Nearly always there are "NO PETS ALLOWED" signs. Most landlords, however, have no objection to a tank of fish or a pet bird.

If the USDI has their way with the "Injurious Wildlife Regulations", allowing only Canaries, Zebra, and Society Finch, there can not possibly be enough to go around. There are thousands of other innocuous birds, which make wonderful pets, and would be permitted by landlords, that could give many hours of pleasure and comfort to lonely people.

The American Federation of Aviculture intends to remain active for many years to come. Our primary goal is to teach everyone the joys and personal satisfaction achieved by the Aviculturist. Those of you who have already received satisfaction from this hobby might consider making an effort to encourage others to become involved, thereby broadening the scope of the hobby. If enough persons become interested in Aviculture as a hobby we would have a much stronger voice and quite possibly would have much more influence with our adversaries. Our future depends upon your interest and efforts ■

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