Avian Pox

After the heavy amount of Pox we experienced this past fall on a number of species, we began investigating the disease in anticipation of creating new station protocols. Reports from other stations in both the United States and Canada prompted us to share this information through *NABB.* Although the cause of the fall 2003 outbreak remains to be determined, it is obvious that banders can and should review their operating protocol vis-a-vis avian pox.

Although mosquitoes can be a vector for the disease, that is most common in closed populations. The major concern for us as banders is that pox is transmitted most easily by direct contact from the abraded or broken skin or pieces of the crusty scab of infected birds to a susceptible uninfected bird. If the target bird has a lesion, infection is even more likely.

Worse, even when the pox has dried for prolonged periods (years have been documented) and sloughed off, that skin or scab can be equally virulent. The virus also can be transmitted via the conjunctiva (mucous membrane covering the anterior surface of the eye) and strains have been found infecting the mouth, larynx, and trachea. This latter form of the disease is often called "wet" pox; birds contracting this form often present with raised, yellow nodes that are visible on the mucous membranes of the mouth (and presumably the throat). Such birds develop eating and breathing problems and seldom survive. The National Wildlife Health Center considers pox to be an emerging viral disease even though it has been recorded since early history.

There is no known treatment for avian pox in a wild population. In captive birds, the lesions are treated to prevent secondary infection. A number of methods are used which are not really applicable to a field/wild population situation.

The pox virus grows by stimulating upper skin layers into abnormal and rapid growth. That tissue soon dies and is the scabs we all see. The disease is self-limiting and leaves only minor scars, thus the cases we have documented of a poxy bird being recaptured in seemingly fine condition. However, the pox lesions can also become a target for secondary bacterial or fungal infection. The cutaneous form of the disease should be of great concern to us. While we can not stop it or treat it, we can alter our station protocols towards prevention:

- Feeders should be decontaminated routinely using a 10% bleach solution. Allow to dry completely before putting it back in service. A common error is to fresh water rinse the feeder after applying the bleach.
- Bird holding bags and other devices need be similarly decontaminated. Once a poxy bird is placed in such a container, it should not be reused, nor should it be reversed and reused; wash and decontaminate. Remember that the slightest bit of scale can serve to transmit the virus.
- Decontaminate your working area and banding equipment as a matter of routine. Pliers, wing-chord rules, calipers, pencils, and just about anything you handle can all retain small fragments of the diseased tissue. Do not forget that your clothes may retain pieces of the tissue and need to be changed/washed as well (that would be a handicap for certain raptor banders I know!).
- Wash your hands well and often. After handling a contaminated or possibly contaminated bird, dose your hands with an alcohol sanitizing product like Purell. We carry small containers of this stuff so that it is readily available at the nets. That allows us to decontaminate between birds. Wash fully with soap and hot water whenever possible.
- If you keep fowl, remember that they are susceptible. Humans are not, but can transfer the virus by contact.

None of the above attempts to answer the why of last fall's outbreak, and your ideas are most welcome. In many cases I would expect that the feeders and station decontamination protocols are at least part of the problem.

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