Random Thoughts . . . on Sins of Reproduction

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We are told with steadfast regularity and unflinching authority that we must not let our birds make "too many" babies, and that we must not let them start doing that until they have achieved a fairly advanced age. That may seem to many people like good advice for humans — there seems to be enough of us to meet the demand — but it seems like abundantly stupid advice to give someone striving to raise the maximum possible number of cockatiels, canaries, finches, budgies, and other cage birds.

The usual pitch is that unregulated reproduction will result in "weak, poor quality, and deformed" babies while the adults will become "weakened" and unproductive unless they are given a "rest" after raising two or possibly three clutches. The other part of the expert advice (enforced celibacy for the first year) is said to prevent some of the same problems. Those who follow this advice can be fairly certain that the only thing they are preventing is more baby birds. Perfectly healthy, happy, *salable* baby birds.

"How did he get an idea like that?" usually is this writer's second reaction to "expert" advice that seems totally unrelated to fact. His first reaction is loud, somewhat explosive, and quite inappropriate to these pages. Although it is very clear that the idea is nonsense today, it is equally clear that the idea must have had some basis in fact at one time in the past. If it used to be true but that is no longer the case, what changed?

It seems likely that some of the change, at least in those species considered easy to breed, has been in the birds themselves. As with all living things, birds evolved in a kind of harmony with their local environment. They are naturally equipped to reproduce at times when that effort is most likely to be rewarded with success. Individuals that come into breeding condition at a time when their chances of success are very low leave no or few descendants with the same trait. Those birds that breed when conditions are optimal produce lots of offspring with *that* trait, so they prosper and become more numerous.

In captivity, many of the usual forces of evolution are held in abeyance by the actions of humans. Temperature and light may be controlled, an endless supply of food is available at little or no effort, and other factors that may have limited reproduction in the wild are modified or eliminated. Without the effect of limiting factors being present, it would become possible for the birds to breed successfully at any time they became physically capable of doing so (i.e., came into breeding condition). Some species are capable of breeding at any time of year and can continue for long periods of time — that's why some claim they must be stopped, obviously. That does not explain why those experts believe that "overbreeding" causes all the ills blamed upon it, however.

One of the high priests of avicultural witchcraft, Matthew Vriends, provides a hint by stating what he calls overbreeding not only causes all

the standard ills, but is the cause of eggbinding and soft-shelled eggs, too. Anyone who is not twenty or so years out of touch with reality knows that those problems are caused by a dietary deficiency; a lack of calcium, phosphorus, and/or vitamin D in the right proportions. It is true that a female bird allowed to breed continuously *and maintained on an inadequate diet* is likely to encounter calcium deficiency problems. She and her mate also may react to cumulative deficiencies by producing offspring such as are blamed on "overbreeding." Continuous breeding may exacerbate the dietary problem, but does not cause it.

If it is true, as it seems to be, that birds were once incapable of producing more than two or three healthy broods in each breeding season, then it probably was because they were being provided an inadequate diet. Today's writers who preach against the evils of overbreeding are just repeating the words of a bygone era, when much less was known about avian diet. As most authors simply copy the ideas of their predecessors, sometimes almost word for word, the myth continues as if it had a life of its own. Many aviculturists have breeding pairs that are kept together continuously and allowed to breed as they see fit rather than on a schedule. As long as those birds are on a diet adequate to support that activity, there is no reason in the world to prevent continuous reproduction.

Another aspect of all this, mentioned on several occasions by AFA convention attendees last year, is the fact that we are tending to create birds that breed well in captivity. Birds in captivity are no longer subject to many of the natural forces of selection that fuel the process of evolution, but we subject them to other evolutionary forces that are equally effective. Captive pairs that happen to breed well in captivity, obviously, produce more offspring than pairs that prove less adaptable. More and more captive birds, therefore, are likely to carry traits that make them easy to breed. That evolutionary effect is important, and is going to become more so, but the biggest influence thus far probably has been the improvement in avian diet.

The idea that birds should be prevented from breeding until some arbitrary age is achieved, rather than allowing them to commence breeding as soon as they think it is a good idea,

probably is just a confused carry-over from experience with mammals. Mammals may become capable of reproduction before they achieve full size (or, some do, anyway: dogs, cats, people, etc.), and allowing them to proceed can have negative effects. Birds, on the other hand, mature sexually after they complete their growth to normal adult size, and suffer no ill effects from breeding just as soon as they are ready. It is interesting to this writer that the prohibition against "early" breeding applies only to those species that mature quickly. Many experts recommend that species such as zebras, budgies, and cockatiels be prevented from breeding until they are from two to three times the age at which they mature, but no one suggests that macaws not be allowed to breed until they are ten to fifteen years old!

Some writers have claimed that producing and incubating eggs and brooding and feeding babies is "so hard on the adults" that it should be limited. Most aviculturists have realized, some as long as 100 years ago, that this idea is silly. Birds breeding in captive situations have an ample supply of food immediately available, are exposed to far less stress, and generally lead a life *very* much less strenuous than do their wild counterparts. The exertion of producing young in captivity is much less than the day-to-day exertion of just staying alive in the wild. The people that still believe this probably are the same ones that claim, because many birds really need the exercise of climbing on the bars of their cages, the bars should be positioned so as to make it *easier*.

It would be unfair to criticize aviculturists of 50 years ago for believing that overbreeding causes disagreeable results, and that good avian husbandry requires that birds be prevented from it. Our predecessors correctly believed, as do we, that they were providing the best possible care for their birds. The fact that we are the lucky inheritors of much broader and more accurate knowledge does not make us better or smarter than they, just better placed in history. The fact that avicultural writers continue to repeat the same drivel, however, without a scrap of evidence to support it, is highly objectionable. When Vriends and most other authors (who are no better) copy "information" from older publications and represent it as being the most up-to-date knowledge, they *know* what they are doing. They know that the material they publish is derived from older publications and, unless they are hopelessly out of touch with modern aviculture, they know that much has been learned since those sources were published. How better served we would be if those authors actually attempted to report accurate information or sought to collect and examine the numerous reports of avian behavior that contradict traditional ideas.

Regardless of most of the "expert" advice, the reality is that birds on adequate diets may be allowed to breed as often as they see fit and that no ill effects will result. It also has been demonstrated (repeatedly) that birds may be permitted to reproduce as soon as they are capable of doing so, and that no harm will result.

This writer recognizes that much of the preceding is in direct contradiction to traditional beliefs and that wholly sincere aviculturists have believed and repeated that conventional wisdom for years. The author has done the same, and has gradually come to the conclusion that much of what he believed was false. As always, he will be delighted to receive (at 240 W. Center Street, Moab, UT 84532) and respond to correspondence expressing views in agreement or opposition. It would be especially interesting to receive well thought out arguments, citing specific cases and incidents, which dispute the ideas expressed above.

There is one aspect of this that deserves further exploration, perhaps by some enterprising canary breeder. In birds that are largely controlled by day length (such as canaries) and which are allowed to nest repeatedly until they spontaneously stop, the last nest of the season, fairly often, is much less satisfactory than those that preceded it. Egg number and fertility may be much reduced, the parents may be desultory in their care of the young, etc. It seems reasonable that the poor performance at the end of the season may be caused by hormonal changes resulting from the dwindling day length. It would be interesting and informative to learn if birds maintained on an unchanging day length (after breeding commences) would just go on breeding successfully indefinitely, as do day length neutral species such as budgies, society finches, zebra finches, etc. ●