

# The Need to be a Student of History

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The field of reproductive physiology and biotechnology is moving at a phenomenal pace, and it is difficult to keep up. Nonetheless, as researchers and teachers, it behooves us to keep up, to know the foundations of our field, and to impart the importance of knowing the literature to our students.

Electronic searches of the literature are extremely valuable in keeping current, but they only cover a small portion of important scientific history. Furthermore, they may be based on a key word or two and are so focused as to lead to tunnel vision in a short tunnel.

We may plan experiments that ask questions already answered. We may draw conclusions from an experiment with selected treatments that may seem plausible, but are they the ones that would be most reasonable in a broader context of knowledge?

A major advantage of computers is that they greatly compress the time required for data reduction and analysis. Not long ago, the time required to analyze masses of data, with slow mechanical calculators, often was greater than the time required to conduct the experiment. So let's use some of this saved time to go to the library, find a few earlier gems, and expand our horizon. As we read previous studies, we should take time to think more about our experiments and the conclusions we draw from them.

I have encountered experimental results, and some currently published by others, where statistically significant effects on fertility, sex ratios, and other factors did not make biological sense. Further reflection would have revealed that the laws of chance, applied to the multiple comparisons, accounted for the differences.

While there is no simple or perfect solution, shouldn't we take advantage of the leisure time the computer affords us to become more aware of the relevant past to help guide our scientific path into the future?

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