

Is Colorblindness a Fair Disqualifier for Judges?

By Rick Burian

Although I have grown orchids since I was a teenager, it wasn't until I joined my local orchid society that I became really involved in the hobby. As I took on several roles in our club and showed enthusiasm, I caught the eye of some of the AOS judges who encouraged me to consider joining their ranks. Imagine my disappointment as I read the *Handbook on Judging and Exhibition* and found early in the book that I was immediately disqualified due to my known colorblindness. Never mind that I met all of the other qualifications such as interest, experience, dedication, leadership, integrity and eagerness — this one small trait that I could not control would automatically prevent me from reaching that goal. It appeared that there was no way around this and I dropped the idea, though it has bothered me for many years. I have heard others agree that this is unnecessary discrimination, so I would like to challenge the AOS to reconsider such blanket disqualification.

I discovered my colorblindness as a young child when my teachers noted that I often used the wrong crayon colors in my art, with tree trunks of green or orange. When hunting for mushrooms, I found that I could spot them before everyone else and was told that colorblind soldiers were used in camouflage work. In college botany field trips to the Smokey Mountains, our group would drive past hillsides of Fire Pinks (*Silene virginica*) and exclaim at their beauty that I did not notice. When we would stop the car and I approached the area that they claimed the plants occupied, I suddenly found the bright red flowers would magically appear. If I backed up just a few inches they were gone. I knew that my color perception was different, but never considered that a problem.

The scientific part of colorblindness deals with the detection of the three primary pigments of reflected light onto the cones in the retina of the eye. There is a wide range of color perception, from seeing only shades of gray to full color vision. Most colorblind people can detect all three pigments, but with some alteration — enough to prevent them from passing standard color-perception tests. Men outnumber women for colorblindness perhaps 20 to one, with almost eight percent of males affected. Women pass the trait genetically to their sons. My maternal grandfather and uncle were colorblind, as are my brother and I. It is likely that many people don't even know that they are colorblind, and many function in society without others becoming aware of their "handicap."

In everyday life there are few problems. I can differentiate traffic signals and recognize stop signs. As a nurse, I can note when there is blood in body fluids and I can compare chemistry strips to determine test results. I admit that I have made a few choices that would elicit summons from the fashion police, so I do confirm with others that my ties won't clash with my shirts.

The names we give to colors are just that, names, and these are learned. I know that grass is green and the sky is blue just like everyone else, and when I see something the same color as those things I can tell that they are identical. Do I see them the same way as everyone else? The answer is obviously no. If I could just trade eyes with someone with normal color perception for a few minutes, we could better appreciate the differences. Maybe someday corrective lenses will be available to enable colorblind individuals to perceive color the way everyone else does.

In judging orchids, color makes up a large percentage of flower score, but I maintain that this is only a small handicap for the colorblind judge. Like sense of smell, there is a wide range of perceptual differences with color. If I offer a flower of *Dendrobium parishii* to a group, I will likely get several different names for the scent, be it like rhubarb, similar to grape Kool-Aid or a sickening perfume. A flower of *Sophranitis coccinea* could be called red, scarlet, vermilion or crimson by different observers based on what they learned that particular color should be called. Lighting can affect how a judge describes a flower's hue. There are tools such as the Nickerson Color Fan that provide standardized color names for consistency, and I am able to compare this to flowers. Slides of awarded plants and photographs in books or magazines such as *Awards Quarterly* are often available for comparisons. While discussing color, the *Handbook* refers to qualities such as hues that are clear, strong, evenly dispersed throughout, rich, unblemished, regular, harmonious and distinctive. All of these are still obvious to most of us who are color confused, even if we can't precisely identify a color as lilac, light purple or pale violet.

I am well aware that an awarded plant requires a succinct, accurate description including color so that the next team considering such a plant for an award will be able to compare them consistently. As teams routinely seek the advice of a more experienced judge, I expect they also often defer to a member who is more proficient at describing color. I believe it is more important to have a variety of judges who bring expertise in many fields, such as hybridizing or species, than it is to have everyone on the same level of color vision. An award description, including color, though often written by one person, should reflect input from other judges. Again, even people with normal color vision may each choose a different name for the color of the same flower. Read through any issue of *Awards Quarterly* to see the wide variety of tonal descriptions used and I would guess that each of us would still see something slightly different in our mind's eye when reading the same account.

I think that much of judging is subjective in that saying a flower is pleasing in color may be of differing degrees to different people. Part of the point system for color includes spotting, venation, splashing, markings, suffusion, etc. and I maintain that these also appeal to judges in varying degrees. In either case, even those of us with altered color perception can have valid input for scoring these qualities.

It is widely acknowledged that color discernment diminishes with general vision as a natural result of hardening and decreasing transparency of the lenses in the eye. Macular degeneration affects color perception as well as vision. Younger eyes likely see colors differently than more mature eyes. Perhaps all judges should be given color tests as they grow older.

Some things in life seem unfair, and many things we can't change. Some are critical, others of minor consequence. It is important to maintain standards in the orchid judging system, but I believe there should be more lenience in the selection of candidates, particularly when it comes to color perception. I concede that color blindness might be a legitimate reason for excluding one from being an airline pilot, when misreading an indicator light could jeopardize lives of passengers, but I am not convinced it should exclude one from the AOS judging teams. There are many orchid enthusiasts who would make excellent judges, yet are prohibited by this small characteristic. I hope this rekindles the discussion within the ranks of orchid enthusiasts.

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