

## No-Eyed Turtles

### Why would someone breed no-eyed turtles?

*By Jerry G. Walls*

Q. I recently saw in an issue of REPTILES magazine a turtle breeder advertising “no-eyed” turtles. Why would someone breed for this characteristic, and how do they figure it helps the gene pool? Personally, I think you would want to cull it. I also find it unethical that a person would breed specifically for such a characteristic, especially when turtles depend on their eyes as much as they do.

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A. Yes, I saw the ad for “no-eyed” turtles as well, though I interpreted it a bit differently than you did. I don’t believe the advertiser is actually breeding for a no-eyed condition or congenitally blind turtles. Instead this breeder is selling specimens that failed to develop functioning eyes due to accidents during development.

During egg development, all body parts are formed at regular times from special areas in the embryo supplied by distinct nerves and muscles. The eyes form from tiny open cups that develop when the embryo is a few weeks old. Retinas, lenses and corneas develop in a specific fashion over several more weeks. By the time the turtle is ready to hatch, the eyes are fully developed, and they open within minutes of hatching.

If anything disrupts the developmental cycle — such as extreme heat or cold, very dry conditions or certain chemicals in the water — one or both eyes will not function, and the turtle will hatch partially or completely blind. Such accidents are not uncommon in turtles.

Also, bacterial infections shortly after hatching can produce blindness in baby turtles. I am not aware of any line of pure-breeding blind turtles, though these lines could exist.

Hobbyists collect congenitally blind turtles — especially red-eared sliders (*Trachemys scripta elegans*) — just like they collect turtles with two heads or those with extra legs. They are curiosities that demand extra care, and they can give you a feeling of accomplishment when the specimen lives for 12 years in your terrarium rather than 12 days, which is more likely the case in the wild.