

crabs.

The molting data suggest that the metabolic costs associated with higher temperatures do not negatively affect horseshoe crab juveniles but rather continue to benefit them, at least in laboratory studies where food supply is dependable.

The information gained from this study is provocative and suggests that at least for horseshoe crab populations in Long Island Sound, increasing water temperatures resulting from global warming, within reason, may not adversely affect larval and juvenile horseshoe crab development. Other factors associated with increased temperatures, such as increases in sediment anoxia, may counteract any benefit as sediment hypoxia and anoxia have been shown to negatively affect egg development in horseshoe crabs (Shuster, et al. 2003). The study also suggests that crowding may not have the same negative effects on horseshoe crab eggs and trilobite larvae as it does on later stage larvae, juvenile, and adults in zoos and aquariums.

Conclusion

This research has shown that embryonic and larval horseshoe crabs develop most successfully in warmer water temperatures and smaller habitat sizes when exposed to crowded conditions. Although this research suggests that increasing water tem