

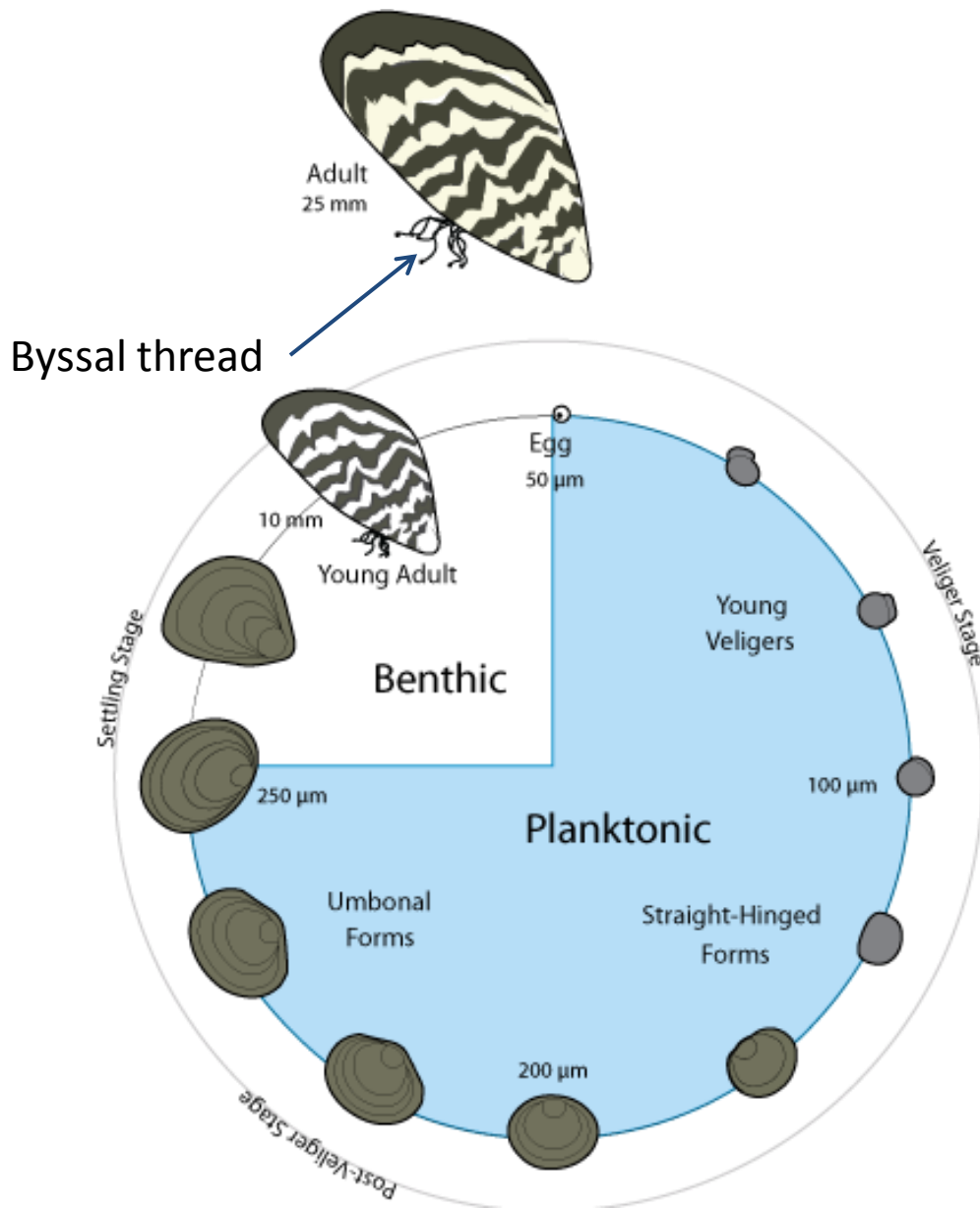
# Zebra Mussels

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*Presented to Environmental Commission*

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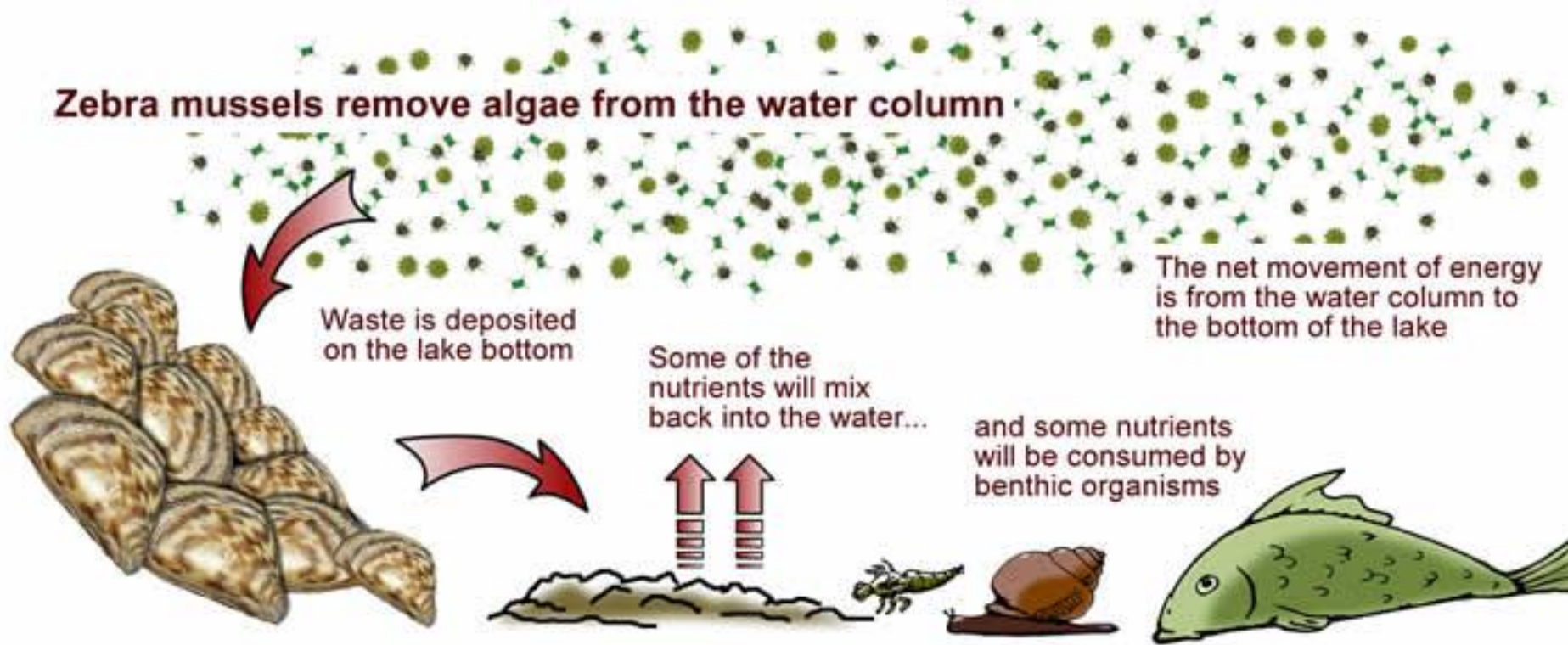


- Veligers float downstream
- Limited upstream dispersal by fish (catfish?)
- Veligers attach easily to hard surfaces, plants, boats, etc.
- Can live outside water for days (hot dry weather) or weeks (cool, moist weather).
- Requires water temps below 32°C (89°F).
- Usually not found below 25' depth. Preference for high calcium environment
- In Texas lakes, early trend shows 3 year boom/bust cycle.
- Might be limited by Phosphorus.

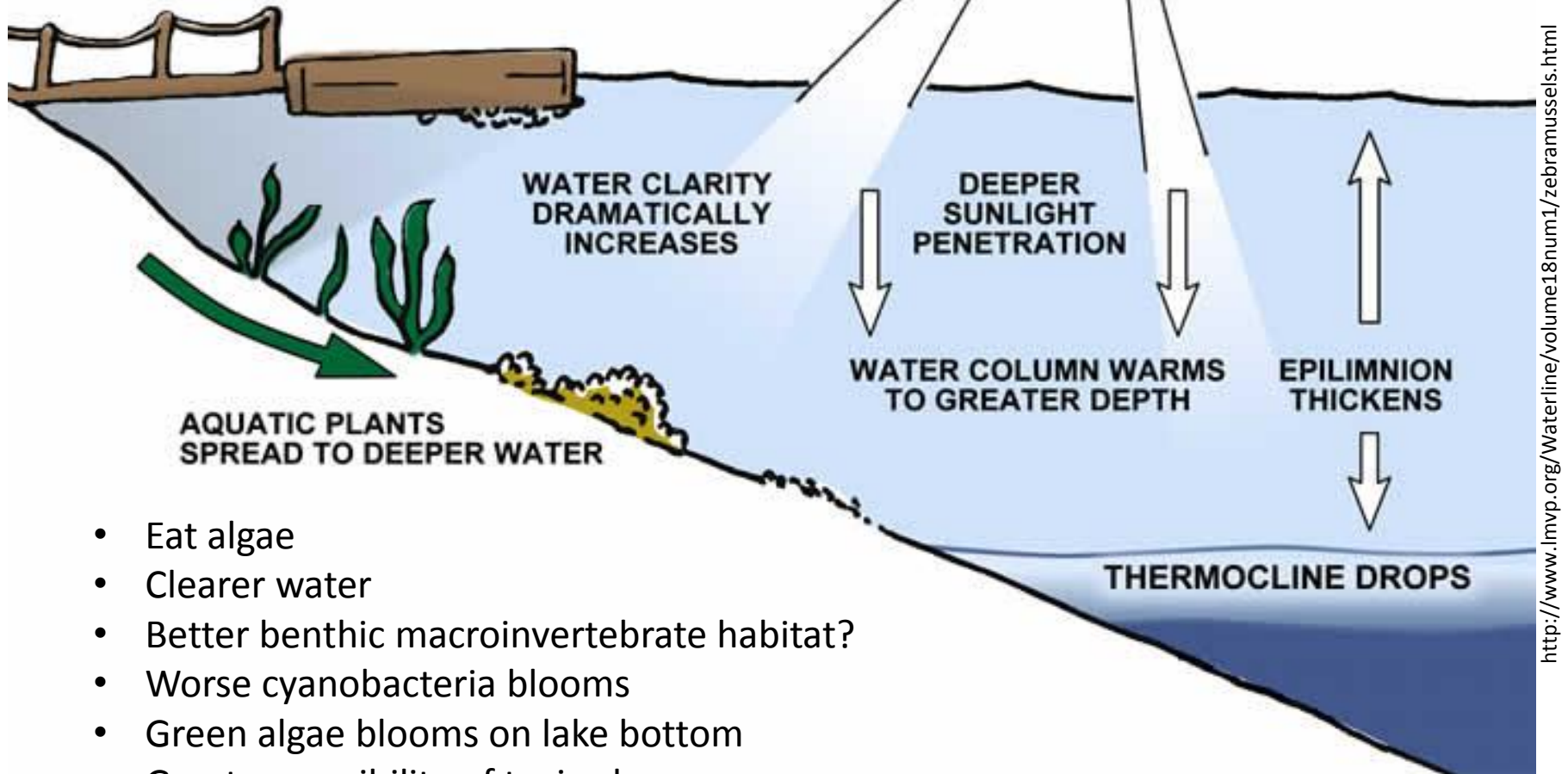
# Life cycle



## Zebra mussels remove algae from the water column



## ZEBRA MUSSELS ALTER THEIR HABITAT BY REMOVING ALGAE



- Eat algae
- Clearer water
- Better benthic macroinvertebrate habitat?
- Worse cyanobacteria blooms
- Green algae blooms on lake bottom
- Greater possibility of toxic algae
- Worse Hydrilla on Lake Austin?



# Other Threats

- Infrastructure
- Recreation (sharp shells)
- Outcompete and smother native mussels
- Changes in food web could affect fish/birds
- Avian botulism?



# Quagga Mussels

*Dreissena rostriformis bugensis*

- Not in Texas...yet
- Can out-compete zebra mussels
- Can survive in deeper water
- Similar issues to infrastructure and environment

