

## Golden Algae

Golden algae, a microscopic plant that lives in water, is increasingly appearing in the lakes and rivers of Texas and killing large amounts of fish. Without further research and steps to rid the waters of this harmful plant, it will continue to bloom in Texas waters, resulting in economic and ecological damage.

Golden algae, or *Prymnesium parvum*, is harmful when it reproduces rapidly and overtakes other aquatic plants. It then begins to release toxins that kill fish, clams and other gill-breathing animals. Because of the toxins, exposed cells such as on the surface of gills and skin are unable to keep out excess water and waterborne chemicals. These exposed cells die due to the chemicals or break open from the excess water.

Golden algae has appeared in most Texas river basins and has caused fish kills in five major river systems in Texas, including the Canadian, Red, Brazos, Colorado, and Rio Grande rivers. Since 1985 the algae has caused more than 65 fish kills in more than 30 different locations, killing more than 25 million fish, valued at \$10 million. These fish kills result in major financial losses to the fishing and recreational industries in Texas.

The good news is toxic golden algae blooms (large outbreaks of the algae) do not appear to affect the water quality. The water's appearance turns from green to yellow and the water foams when agitated. But, after the bloom is over, these conditions disappear.

The algae does not affect other non-gill breathing animals. Cattle, birds and other animals can drink the water and eat the dead fish with no apparent effects.

Scientists with the federal and state agencies, river authorities and several Texas universities are working to understand golden algae and to develop methods for its control. Research has discovered ways to control growth and toxicity in ponds or fish hatcheries, using chemicals, such as ammonia and bales of straw. The methods, however, are not economically or ecologically feasible for the larger lakes and rivers.

Until better methods for control are developed, the Texas Parks and Wildlife Department recommends the following steps for the boater and angler to help control the spread of golden algae:

- Visually inspect your boat and equipment for any attached plants or animals and remove them
- Drain all live wells, motors, transom well, and bilges on land before leaving the lake
- Wash and flush all areas of your boat and trailer with fresh water
- Empty your bait bucket on land before leaving the lake. Never release live bait into a water body

Remember: what you do affects the quality and quantity of the water you drink and use. By keeping that in mind, you are helping protect water resources now and in the future. Help save Texas water and make every drop count.

