



California State Parks Division of Boating and Waterways
Quagga and Zebra Mussel Infestation Prevention Grant Program

Boat California Quagga & Zebra Mussel Prevention Quiz

The following is a sample quiz utilized by the Division of Boating and Waterways for an outreach pilot project conducted at Lake Perris. The quiz can be tailored and utilized at other reservoirs, as needed. Refer to the bracketed information within the questions for the areas that will need tailoring.

Intro Page:

How much do you know about quagga and zebra mussels?

1. True or False:

“Clean, Drain and Dry” means you check your boat to ensure there are no mussels, mud or plants on your boat and no water in the bilge, ballasts or engine before you leave the launch area after boating.

Answer: T

2. These mussels are highly destructive in our waterways because they can:

- a. Compete with native fish and mussels and alter aquatic wildlife habitat
- b. Impact recreational opportunities by encrusting docks and beaches
- c. Clog water intake structures, threatening municipal water supplies, agricultural irrigation, and power plant operations
- d. All of the above**

3. True or False:

Quagga and zebra mussels pose serious risks and costs to you as a boat owner because they can: block your boat’s engine and cause overheating, increase drag on the bottom of your boat, and/or jam your boat’s steering equipment.

Answer: T

4. You should check your boat, engine and trailer for quagga and zebra mussels:

- a. At the beginning of each boating season
- b. When you tune up the motor
- c. Each time you pull the boat out of the water**
- d. Before closing your boat up for winter

5. Out of water, quagga and zebra mussels can survive...

- a. Five days in hot California weather**
- b. Ten days in the cool California winter
- c. A week in rainy weather
- d. All year around in California

6. How should you clean, drain and dry your boat and trailer?

- a. Spray your boat with cool water, drain the engine and bilge near a gutter drain by your house and hand dry the hull
- b. Take your boat to a detailer for a wash, dry and wax early in the summer
- c. Wash your boat with warm water in your driveway and let it dry on the way to the launch area
- d. None of the above**

7. If you find quagga or zebra mussels on your boat you should

- a. Scrape them off and dump them in the trash
- b. Take photos and post on social media
- c. Notify lake/marina staff before removing the mussels**
- d. Leave them on your boat and call 911



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8. What type of [INSERT NAME OF RESERVOIR] recreation do you do most?

- a. Boat
- b. Shore Fish
- c. Swim
- d. Camp
- e. None of the above

9. Do you plan to use [INSERT NAME OF RESERVOIR] for boating in the future?

- a. Yes
- b. No

10. [IF YOUR DEPARTMENT WILL BE PROVIDING AN INCENTIVE FOR THE PUBLIC TO TAKE THE QUIZ, SUCH AS A FREE LIFE JACKET, WE RECOMMEND YOU COLLECT THE FOLLOWING INFORMATION AND ALSO ADD TERMS AND CONDITIONS] [NOTE: THE QZ GRANT PROGRAM IS NOT ABLE TO REIMBURSE FOR INCENTIVES]: Enter your email address and zip code below for a chance to receive an inflatable life jacket. Your privacy is important to us. Your email address will not be distributed outside of the quiz program.

Email Address:

Zip Code:

At the "Done" slide, please say "Done – Show me my score!" [NOTE: THIS QUIZ WAS ORIGINALLY SERVED ELECTRONICALLY; REMOVE THIS NOTATION, AS NEEDED]

ANSWERS:

1. True

You are correct! Clean, Drain, Dry is a simple three step process that you, as a boater, can follow every time you move your boat, fishing or other recreational gear, from the water. When you take action before leaving the area, you can help stop the spread of harmful aquatic invasive species! **CLEANING** removes visible plants, mud, and large-bodied organisms attached to, or in, watercraft, trailers, or recreational equipment. **DRAINING** water from bilge, bait wells, ballasts and the engine before you leave the launch area removes water that hides small and nearly invisible invasive organisms such as quagga and zebra mussel larvae (veligers). **DRYING** is necessary to ensure that biological material is not transported. Many organisms can survive in small amounts of standing water for certain amounts of time depending on temperature and humidity.

You did not select the correct answer. Clean, Drain, Dry is a simple three step process that you, as a boater, can follow every time you move your boat, fishing or other recreational gear, from the water. When you take action before leaving the area, you can help stop the spread of harmful aquatic invasive species! **CLEANING** removes visible plants, mud, and large-bodied organisms attached to, or in, watercraft, trailers, or recreational equipment. **DRAINING** water from bilge, bait wells, ballasts and the engine before you leave the launch area removes water that hides small and nearly invisible invasive organisms such as quagga and zebra mussel larvae (veligers). **DRYING** is necessary to ensure that biological material is not transported. Many organisms can survive in small amounts of standing water for certain amounts of time depending on temperature and humidity.

2. d) All of the above



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You are correct! All of the above are correct. Mussels are highly destructive in our waterways because they compete with native fish and mussels and alter aquatic wildlife habitat by consuming large amounts of plankton that would otherwise be available for native species. They impact recreational opportunities by encrusting docks and beaches. They clog water intake structures, threatening municipal water supplies, agricultural irrigation, and power plant operations.

Incorrect, you did not select the correct response. All of the above are correct. Mussels are highly destructive in our waterways because they compete with native fish and mussels and alter aquatic wildlife habitat by consuming large amounts of plankton that would otherwise be available for native species. They impact recreational opportunities by encrusting docks and beaches. They clog water intake structures, threatening municipal water supplies, agricultural irrigation, and power plant operations.

3. True

You are correct! Quagga and zebra mussels pose serious risks and costs to you as a boat owner because they can: block your boat's engine and cause overheating, increase drag on the bottom of your boat, and/or jam your boat's steering equipment. To check your boat, carefully feel your boat's hull for any rough or gritty spots, which may be young mussels. Young quagga and zebra mussels will feel like sandpaper.

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4. c) Every time you pull the boat out of the water

You are correct! You should check your boat, engine and trailer for quagga and zebra mussels each time you pull the boat out of the water. Day boats, or those that "come and go" and spend only a few hours in the water, are still at risk for picking up and transporting mussels to other lakes and rivers. Tiny young mussels can attach to boats, trailers, motor and fishing gear. They can be transported in ballast water, bilge water and live bait wells. They can even attach to fishing lines, boat cables and stick to the soles of waders.

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5. a) Five days in hot California weather

You are correct! In hot, dry weather, let your boat dry for at least five days. In cool, wet weather hidden mussels can survive for up to 30 days. Boaters should always clean, drain and dry their boats at least five days before launching into another waterway. It is against the law to transport quagga/zebra mussels. Boats found with evidence of the mussels may be quarantined and refused entry to freshwaters. Each waterbody has its own rules about the dry time required before a boat can launch. Before you travel to a new waterbody, contact the local watercraft inspection program to learn what they require.

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6: d) None of the above

You are correct! None of the answers given were correct. Here's how you should clean, drain and dry your boat and trailer: as you pull away from the launch ramp, find a parking spot and wipe down your boat's hull, feeling for "sandpaper-like" spots on exposed surfaces. Pull all the plugs in the boat, drain the bilge, ballast, bait wells and engine before taking your boat out of the area. Guides showing how to clean, drain and dry your boat are online at: StopAquaticHitchhikers.org.

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7. c) Notify lake/marina staff before removing the mussels

You are correct! If you find quagga or zebra mussels on your boat or equipment you should notify lake/marina staff and the California Department of Fish and Wildlife. They will tell you how to remove and dispose of the mussels. If you have questions about reporting quagga and zebra mussels, please contact the California Invasive Species Program at (866) 440-9530 or send an e-mail to invasives@wildlife.ca.gov.

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