



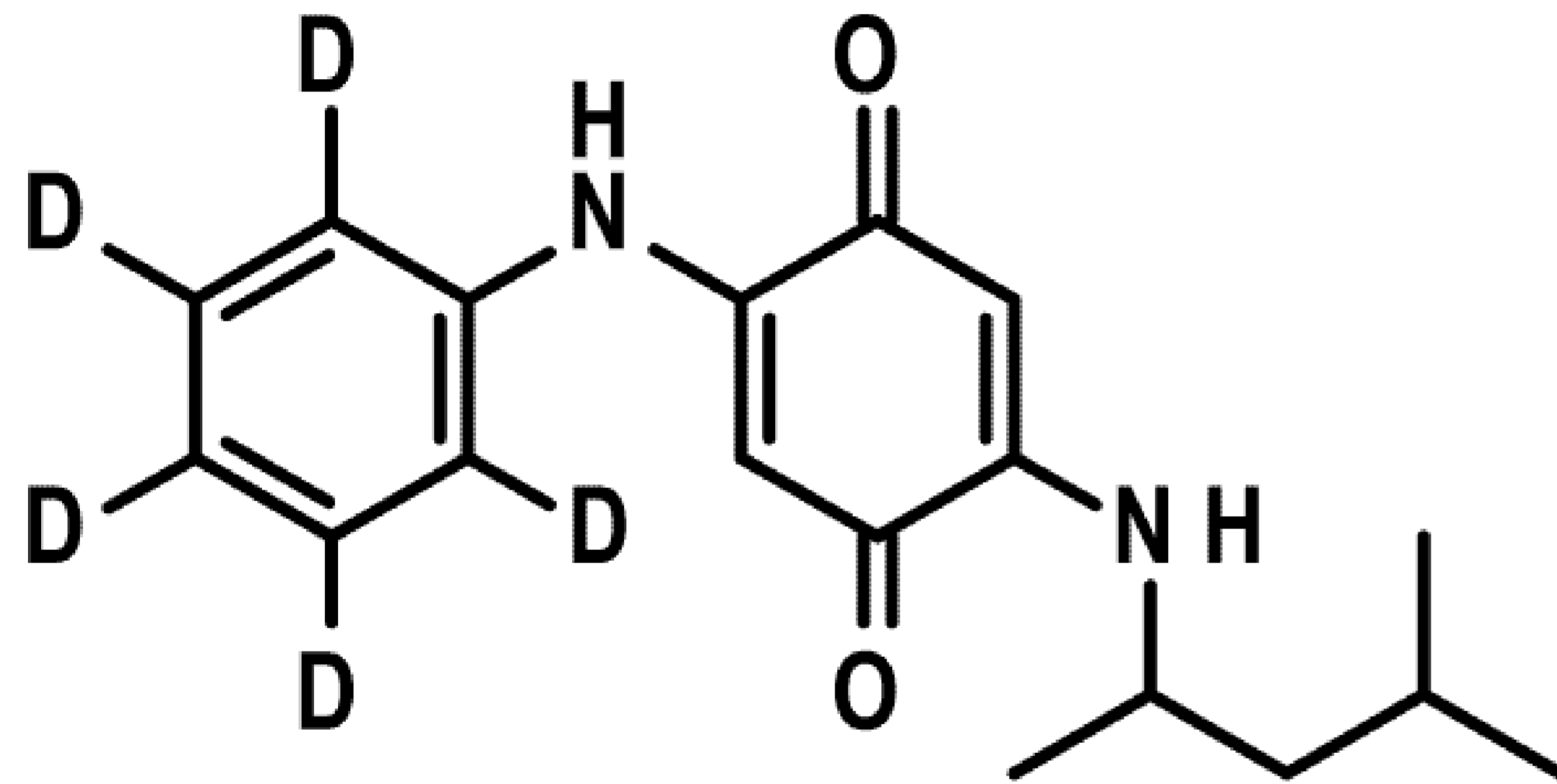
University  
of Idaho

# CRAYFISH AND TIRES

COMING SOON TO A LOCATION  
NEAR YOU!

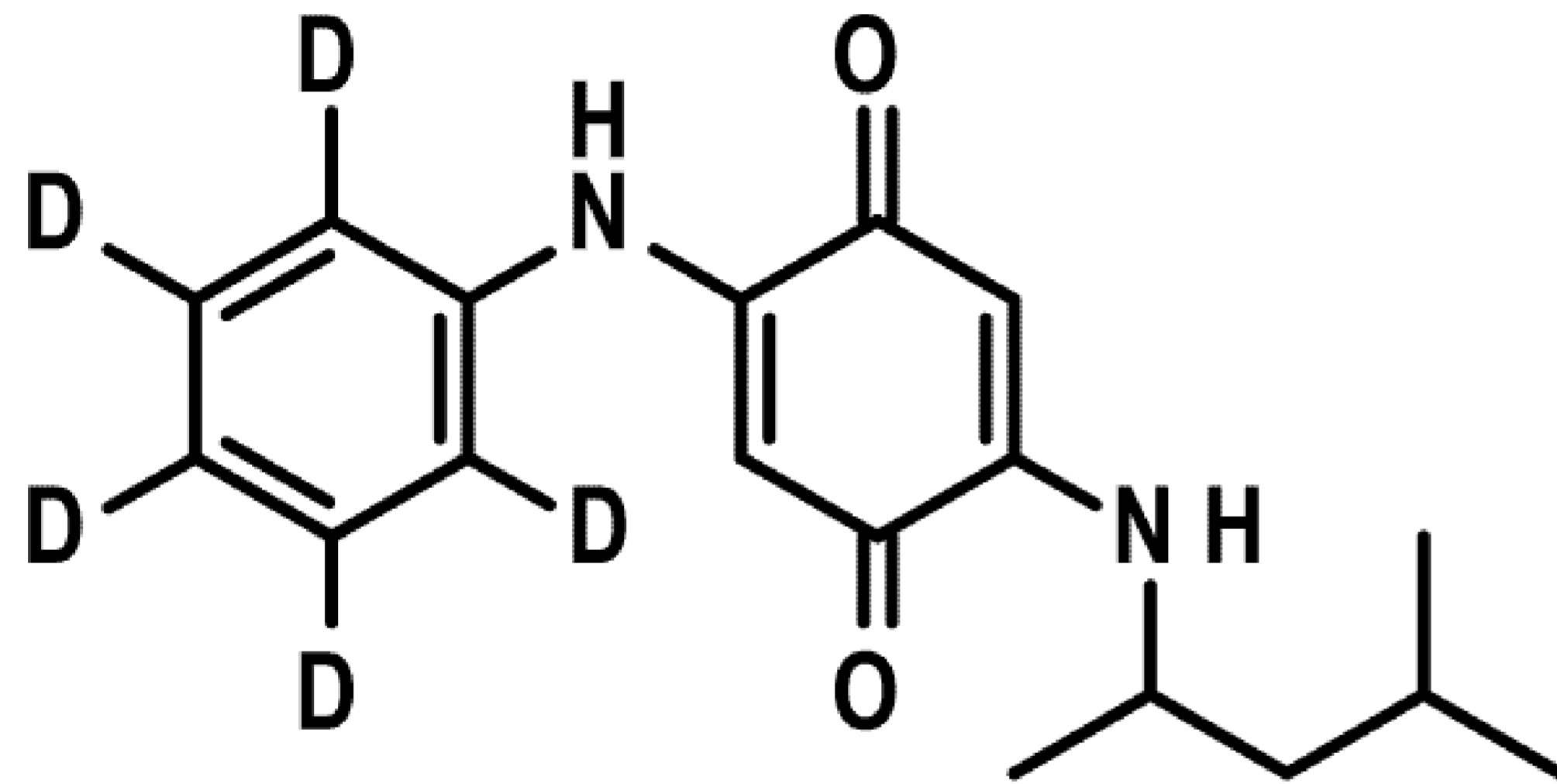


**RAISE YOUR HAND IF YOU HAVE HEARD  
OF 6PPD-QUINONE**



6PPD-quinone

- Recently discovered (Tian et al. 2021)
- Degradation product of 6PPD, a commercial antioxidant
- Main source is from tire wear particulates in urban stormwater
- Toxic to Coho salmon and other aquatic organisms
- Thought to bioaccumulate
- Distribution is unknown



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# THE PROBLEM



<https://tenor.com/view/washington-state-north-cascades-river-nature-majestic-gif-11111063>

<https://giphy.com/gifs/columbia-o0vKra8rn7hVm>

# THE SOLUTION?



- Reflects local site conditions
- Reacts quickly to environmental change
- Occupies multiple trophic levels
- Widely distributed in the Columbia River Basin



**HAVE YOU CAUGHT OR EATEN CRAYFISH?**



Grant number: 02J19601

# CRAYFISH AS INDICATORS OF 6PPD-QUINONE

## Project Goals

- I** to demonstrate the applicability of native and non-native crayfish as monitoring organisms for 6PPD-quinone (6PPD-q) contamination across a variety of environmental conditions
- I** to promote citizen engagement and knowledge of aquatic contamination by tire wear particulates and 6PPD-q

## Project Partners

- I** University of Idaho
- I** Salish School of Spokane
- I** Montana Fish, Wildlife, & Parks
- I** The Clark Fork Coalition
- I** Washington State Department of Transportation





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# CRAYFISH AS INDICATORS OF 6PPD-QUINONE

## Focus Watershed in the CRB

- I Spokane
- I Clark Fork
- I Pend Oreille
- I Upper and Middle Snake River

## Citizen Science Involvement

- I School sampling events with Salish School of Spokane
- I Community sampling events on the Clark Fork (with the Clark Fork Coalition)
- I Other community sampling events TBD



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# **CRAYFISH AS INDICATORS OF 6PPD-QUINONE**

## **How to get involved?**

**I** Website coming soon!

**I** Please reach out: [engels@uidaho.edu](mailto:engels@uidaho.edu)