

## **The Pesticide Detectives: National Assessment of Pesticides in Waters**

Interested to participate in a first of its' kind exciting Australia wide Citizen Science project? Pesticide Detectives is an extensive project investigating the occurrence and concentrations of pesticides in Australian waterways. It is funded by the Department of Industry, Innovation and Business and undertaken by the Aquatic Environmental Stress Research Group (AQUEST) based at RMIT University. Citizen Scientists in collaboration with AQUEST scientists will collect sediments from waterways across Australia to advance our understanding of pesticide contamination in Australia's waterways. Results from the study will be shared with you and will be available on our webpage. Learn more about pesticides in your waterway by participating in this study. Go to [www.rmit.edu.au/pesticidedetectives](http://www.rmit.edu.au/pesticidedetectives) for further information.

**Project Manager:** Kavitha Chinathamby

**Project team:** Jackie Myers, Vincent Pettigrove

### **AQUEST research Group:**

Based at RMIT University the Aquatic Environmental Stress research group (AQUEST) assesses the health of aquatic ecosystems; inland waterways and estuaries, using a weight of evidence approach based on environmental outcomes. We work with research institutions, government, industry and community groups on various environmental monitoring, management and research projects.

### **A little background on the project:**

Our research group received funding from the Department of Industry, Innovation and Business to undertake a citizen science-based project investigating pesticides in Australian waterways. The aim is to investigate pesticide concentrations in sediments from waterways influenced by different land uses and at the same time educate communities about pesticide use and the links between use and potential impacts to local waterway health.

The plan is to sample at around 140 sites across Australia on 3 occasions. Some sites may change between sampling events.

The role of community volunteers in the project is they will learn to collect scientific sediment samples, go out to a field site and collect a sample, provide some details about the site (e.g.: surrounding land use, bank condition, location of any influences such as storm drains, other inputs, waterway size, location) then send the samples back to us for analysis. A sampling kit and postage bags are all supplied. We are asking for time from our volunteers. The results from the sampling are then shared on our Pesticide Detectives website, FB page and through newsletters back to the volunteers.

We have undertaken a pilot study in Victoria, where we worked with EstuaryWatch/Waterwatch volunteers to sample several estuaries. This has just been completed and went well. We are now trying to work on building our networks across Australia to undertake the national surveys. So, we are looking for groups or individuals that would be interested in participating.

### **How community groups can be involved:**

- We would like some assistance in locating appropriate sites across your region that would represent different land uses shown in Table 1. These could be sites you already have groups monitor, or sites that are not currently monitored but would be safe to access for sample collection.

- We need co-ordinators in different regions who are happy to receive our sampling kits and pass them out to the groups conducting the sampling. Supplied with each kit are pre-paid sampling bags, so volunteers within groups can post the samples back to us once collected.
- We would like to be able to send out project updates through your networks, email, share on FB, twitter etc.

**Google form:**

Kavi will send out a google form to all of you, which if you are happy to be involved in the project, you can fill out. It will ask questions about:

1. Which State you are from?
2. How many sites can you nominate? Provide site locations with GPS coordinates.
4. Waterway name/s?
5. Land use around the site based on table above?
6. Reasons why you are nominating the site? (Eg. Pollution event, important waterway, historical data).

Table 1: Land use categories targeted for sampling as part of Pesticide Detectives Program.

**LANDUSE**

STATES	URBAN		ORCHARDS	HORTICULTURE	LIVESTOCK	FOREST	CROPS
	Old	New	Fruits, Nuts	Vegetables	Livestock pastures	Plantations	
	Pre-1990s	Post 2000	Eg. Stone fruits, pome fruits, bananas, mangoes	Eg. Tomatoes, potatoes, berries, melons	Eg. Improved and closed pastures for meat, livestock.	Eg. Radiata pine	Eg. Wheat, Canola, Sugarcane, Barley
TAS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NSW	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QLD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ACT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you would like any further info, please don't hesitate to give myself Jackie or Kavi an email or call. Our contact details are:

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