

Kashia Department of Environmental Planning

# Environmental Newsletter

Issue 2 Spring 2018

## Think, Plan, Act



Photo: Ariel view of Stewarts Point Rancheria

### *Top Story of Edition*

## **Best Management Practices Assessment** **Questionnaire**

The Kashia Department of Environmental Planning is interested in hearing from Kashia Tribal Members about how they envision long-term management of the Tribes Lands. You can ensure that your voice and unique perspective is heard by completing the Community Tribal Land Management Questionnaire.

We encourage Kashia Tribal Members to get involved in helping guide the Department's work read on to page-3 to learn how to get involved.

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# Plans and Projects



## Rainwater Catchment Installation Project

The Kashia Department of Environmental Planning and Gualala River Watershed Council (GRWC) have completed the installation of a rainwater catchment system on the reservation behind the Sù Nù Nù Shinal Community Center. Grant funding was provided by the Watershed Council's Flow Bank Program whose main purpose is to **protect Steelhead & Salmon habitat** by reducing the amount of water withdrawn from the Gualala River watershed during summer months. The system increases the Tribe's storage capacity by nearly 30%, providing an alternative water source to be used for irrigation, emergency fire suppression and times of drought.



**Rainwater collection/harvesting** the process by which rain water that hits the roof is stored and reused.



Figure 1. Rainwater Catchment System (behind Community Center)

**Roof catchment system** a system that channels rainwater that falls onto a roof into a storage tank through a system of gutters and pipes.

### **Benefits of Rainwater Harvesting**

- 1) Provides alternative water source which can be used for a variety of non-potable uses
- 2) Reduces water bills
- 3) Reduces soil erosion
- 4) Reduces contamination of waterways caused by storm-water runoff
- 5) Can be used to irrigate around your home during dry summer months & drought periods

Rainwater catchment systems can be sized for any situation, and home systems can be installed at reasonably low costs. KDEP is encouraging the community to consider rain catchment systems for their homes to supplement water use and reduce their water bills.

If you have any questions and/or interest in having a system installed at your home please contact **Nathan Rich or Abby Gomes at the Tribal Office @ 707-591-0580 or [nathan@stewartpoint.org](mailto:nathan@stewartpoint.org) or [abby@stewartpoint.org](mailto:abby@stewartpoint.org).**

## **Steelhead in the Classroom Project**

Kashia Department of Environmental

Planning is collaborating with Kashia Elementary school for the 2nd year in a row to conduct the Classroom Aquarium Education Project/Steelhead in the Classroom Project. Through the program students are able to raise steelhead in the class, watch them hatch, learn about life stage development and learn the importance of maintaining good water quality for fish. At the end of the program fish will be released into the wild where they will eventually make their journey to the ocean.

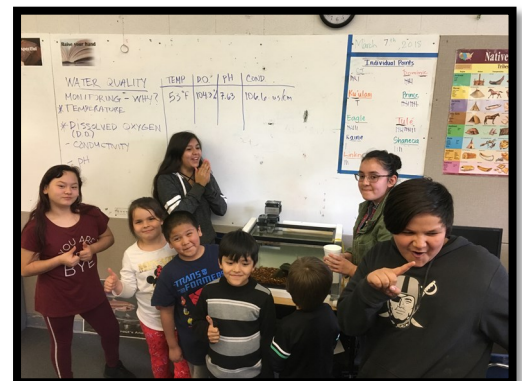


Figure 2. Kashia School, Placing Steelhead Eggs in Aquarium



# **Best Management Practices Assessment**

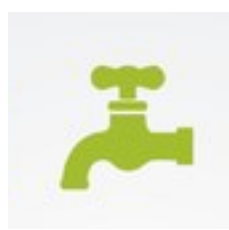


The Kashia Department of Environmental Planning is continuing its work on a Best Management Practices Assessment (BMPA) for the Tribes Lands and encourages community and stakeholder participation in identifying resources and resource concerns. Although the Department is getting closer to completing its first draft of this Assessment we still need your help in gaining an understanding of what the Kashia Tribal Community concerns are for the management of its lands and natural resources.



**To help you understand how you can assist in the development of community resource concerns I will give a brief description of the intended outcomes of this assessment.**

- ♦ Identify the environmental and community resources on Tribal Lands.
- ♦ Identify any environmental and human health concerns associated with the various identified natural and community resources.
- ♦ Determine what Best Management Practices (BMP's) can be implemented to mitigate or eliminate the environmental or human health impact identified.
- ♦ And most importantly to encourage community and stakeholder participation in identifying resources and resource concerns.



***Continued***



## Assessment Questionnaire

To assist the community in providing input during the BMPA development processes the Department has hosted several community meetings and has received comments on community resource concerns. Because meetings alone have not reached a large enough cross section of Tribal Community Members, to develop community resource concerns the Department is releasing a Community Assessment Questionnaire. This assessment includes questions on climate resilience, pesticides, and resource management that will help the Department finalize its first draft of the Best Management Practices Assessment.



### Where to Find the Assessment Questionnaire?

The Department of Environmental Planning has posted the BMP Assessment Questionnaire to the Tribe's webpage at: [www.stewartspoint.org](http://www.stewartspoint.org). It is on the front page under "Announcements."

You can pick up paper copies at the Tribal Office. Filled out questionnaires can be given to: Enrique J. Sanchez at the Tribal Office. If you have questions, you can contact him at (707) 591-0580 ext112 or at [enrique@stewartspoint.org](mailto:enrique@stewartspoint.org).





## Bed Bugs: History, Identification, Biology and Control

### Bed Bugs History

- Bed bugs have been a companion of humans since the beginning of recorded history.
- Chemicals, such as, sulfur, mercury, arsenic and pyrethrum were used.
- Bed bugs were a common household pest until the 1940s when chemical pesticides were developed



### Identification of Bed Bugs

- There are several bugs that may be mistaken for bed bugs.



Swallow Bug



Bat Bug



Bed Bug



Cat Flea



Apple seed



Chimney Swift Bug

### Hot Spots

- Beds
- Couches
- Recliner chairs
- But can also be found on other areas, such as the bathroom, behind baseboards and under picture frames.



### How to Control Bed Bugs

- Integrated Pest Management (IPM) approach is the most likely strategy to result in successful elimination of bed bugs and safeguards the environment - i.e. remove food - water - shelter.
- Don't pick up mattresses left on the sidewalk.
- Cover your mattresses in a bed cover.
- Remove clutter in your home.
- If you travel, place your suitcase in the bathroom on the uncarpeted floor and check the bed and furniture. If uncertain, take plastic bags with you to pack your clothes in. When you come home, leave your suitcase and clothes outside until washed, if possible.



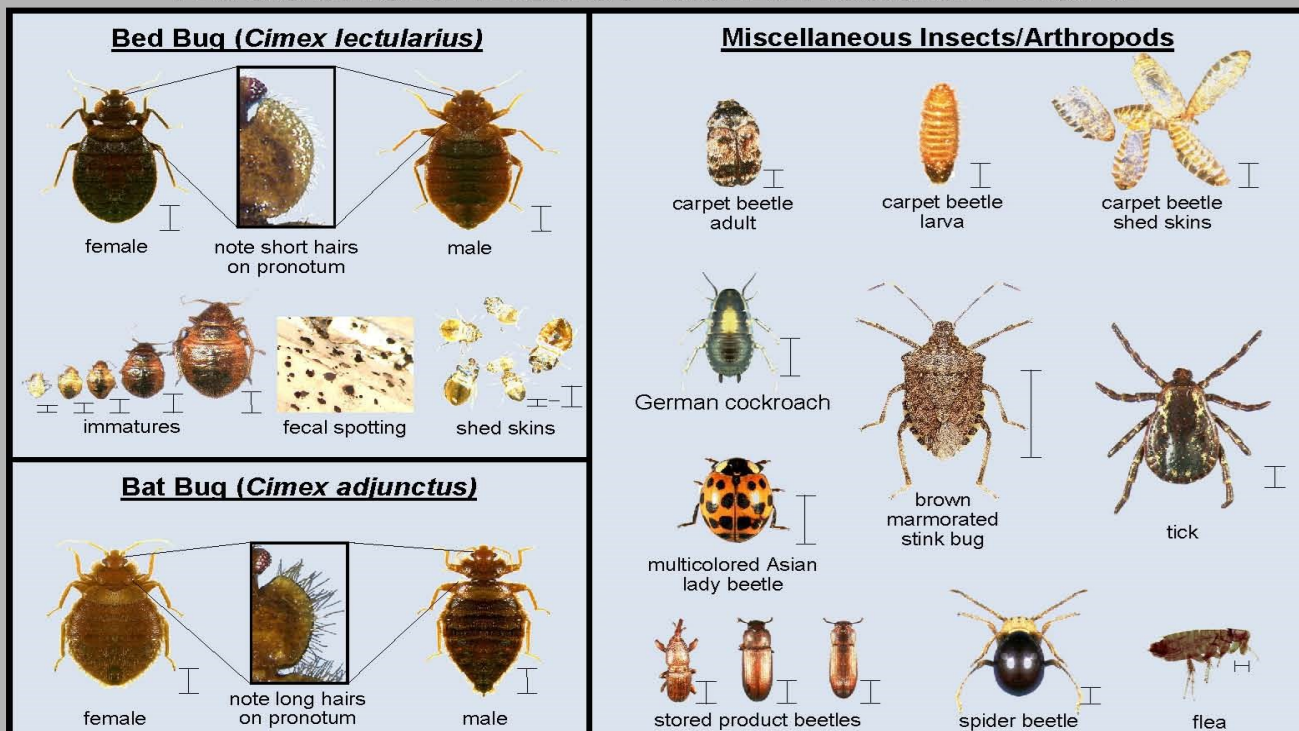
### **!!DO NOT POISON YOURSELF OR FAMILY!!**

Many of the pesticides purchased that say "kill bedbugs" actually don't. Desiccant dusts like diatomaceous earth and silica dust have proven to be very effective.

Also heat use treatments if possible. Clothing can be put in the dryer for at least 20 minutes on high heat. Iron the seams of furniture and beds if it will not damage the fabric.



# Household Insect Identification Card



Scale bar to lower right of each insect indicates actual size.

CFAES-1001-16

S.C. Jones, D.J. DeGirolamo, J.L. Bryant

Supported in part by National Institute of Food and Agriculture, Hatch project 211901, and state and federal funds appropriated to the Ohio Agricultural Research and Development Center, The Ohio State University.

## Tips for Bed Bug Prevention and Control



### Correctly Identify the Insect:

- See photos on reverse
- Contact Ohio State University's Pest Diagnostic Clinic ([ppdc.osu.edu](http://ppdc.osu.edu))

### Bed Bug Habits:

- Prefer to feed at night on human blood
- Hide during the day
- Hide in cracks, crevices and dark places
- Cannot fly, but walk very fast
- Can survive several months without feeding if a host is absent

### Inspecting for Bed Bugs:

- Use a bright flashlight
- Look for the bugs and their dark spotting and shed skins (see photos on reverse)
- Carefully inspect bedrooms and main living areas where people rest or sleep, focusing on:
  - \* Mattress seams, box springs, and bed frame
  - \* Behind hanging pictures, baseboards, moldings, and loosened wallpaper
  - \* Inside electronics (e.g., smoke detectors, thermostats, electrical outlets, etc.)
  - \* Top, sides, underside, and interior of furniture
  - \* Carpet tack strip (underneath carpet edges)

### Travelers' Tips:

- When preparing to leave:
  - \* Travel very light
  - \* Put all items into tightly sealed plastic bags inside suitcase
  - \* Be sure to take extra plastic bags so you can isolate clean, dirty, and newly purchased clothing
- During your trip:
  - \* Carefully inspect your room for signs of bed bugs
  - \* Change rooms if you find any signs of bed bugs
  - \* Never store luggage on the floor or bed
  - \* Keep your clothes in your suitcases, not in provided chest-of-drawers
- When arriving home:
  - \* Do NOT take luggage inside bedrooms or living rooms
  - \* If possible, launder all clothing in your luggage
  - \* Store empty luggage inside sealed plastic bags

### Control:

- Act immediately
- Eliminate clutter
- Caulk or seal cracks and crevices
- Launder bedding, clothes, etc.
  - \* Wash in hot water (120°F [49°C] minimum)
  - \* Drier set on medium to hot setting (30 minutes minimum)
  - \* Confine clean items inside sealed plastic bags
- Do not use "bug bombs"
- Do-it-yourself bed bug control is very difficult
- Consider hiring an exterminator
  - \* Make sure the exterminator is licensed
  - \* Get at least 3 estimates before choosing an exterminator
  - \* Bed bug control takes considerable time and effort

Provided by The Ohio State University Extension Integrated Pest Management Program

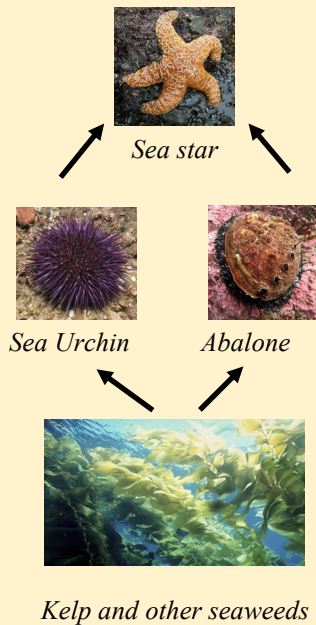
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# Spotlight on Environmental Issues of Concern to Kashia

## Kelp Forest Decline Along Pacific North Coast

**Keystone Species** – a species whose presence has a significant effect on the surrounding environment. Keystone species help maintain balance within their communities. Removal of a keystone species from their environment creates imbalance and changes community structure.



Kelp forests along the Pacific North Coast are currently in decline. Areas which were once the home to lush diverse kelp forest ecosystems, are now the home to large populations of purple sea urchins. According to researchers from the California Department of Fish and Wildlife (CDFW), sea urchin populations today are *more than 60 times greater* than historic densities. The cause of this decline in kelp forests and rise in sea urchins can be attributed to a number of factors, which scientists are calling the “Perfect Storm.”

### **Harmful Algal Bloom (2011)**

A large number of marine invertebrates are killed off and wash up on shore during a harmful algal bloom event.

**Sea Star Wasting Disease (2013)** A large number of sea stars are killed due to the spread of sea star wasting disease.

**Purple Sea Urchin Explosion (2014)** Due to a reduction in the number of predators, sea urchin populations experience an explosion. Urchin barrens replace kelp forests. Urchins outcompete abalone.

**Persistent Warm Waters (2014-present)** Persistent warm waters have provided another barrier to kelp forest recovery. Kelp are extremely sensitive to temperature changes. Warm waters provide less nutrients than cold water. For additional resources and links, visit the following website

<https://cdfwmarine.wordpress.com/2016/03/30/perfect-storm-decimates-kelp/>

**Urchin Barren**– an area where the population of sea urchins has grown out of control, resulting in destructive grazing to kelp forests.



### **Effects of Declining Kelp Forests**

Decreases in kelp forests have created *starving conditions* for both abalone and sea urchins, further stressing the marine ecosystem.

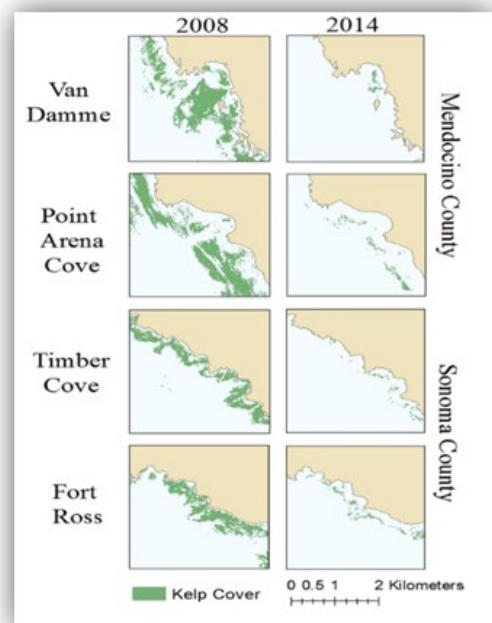


Figure 1. Ariel Kelp Surveys, CDFW



**If you have any questions regarding the articles in this newsletter or are interested in providing suggestions for the next Environmental Newsletter contact Enrique J. Sanchez, Environmental Technician/Emergency Management Coordinator at *Phone: (707) 591-0580 x112*  
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