

**BUG
FAIR
CONNECTED**

COOKING CRITTERS

WITH BUG FAIR CHEF ALY MOORE!

NATURAL
HISTORY
MUSEUM
LOS ANGELES COUNTY

BUGIBLE!
EATBUGSEVENTS.COM

INTRODUCTION

Many western cultures have developed a strong stigma against eating bugs. Bugs have a bad reputation for being gross, scary pests.

Today, however, we are going to learn about the wonderful world of edible bugs. We're going to talk about how and why 2 billion people in the world eat bugs—and have been for hundreds of years. People in western societies have only just begun to explore the sustainable and nutritious benefits of eating bugs.

If we want a future where we get healthy food in a way that is easier on the environment, we need the voices and actions of the next generation to help. It is my hope that you open your mind and mouth to bugs as ingredients, and spread the word.

**WHO
IN THEIR RIGHT MIND
WOULD EAT
BUGS???**



RETHINKING WHAT FOOD MEANS

Let's take a minute to think about what "edible food" is. What we define as "food" depends on how we are raised, what our friends eat, where we live, and a variety of other factors. For example, some people eat orange peels (and we don't mean just the zest, but the whole rind!)—you might think that's odd, but the orange peels actually are the most nutritious part of the fruit.

Let's look at Sushi: back in the 1960s, it was considered barbaric to eat sushi. Americans couldn't understand why people would eat raw fish. As international business picked up with cultures that ate sushi, like Japan, sushi began making its way onto a few menus. But Americans were still hesitant. With a bit of creativity,

a clever chef introduced the California Roll. He disguised the raw fish in rolls of rice and avocado, making the dish less intimidating and more familiar for Americans. Photographs emerged of celebrities eating this new dish and it went from being feared to being trendy. Now we can't get enough of it!

It is my hope that bugs will take a similar path. But we have to take a few steps to get there. For example, we need to reconsider the language we use around food. Bugs need new branding. Consider this: we don't eat raw fish, we eat sushi. We don't eat cows, we eat beef. We don't even necessarily eat plants, we eat vegetables. We might need a better name for bugs if they are to make their way onto menus.

OUR GOALS FOR TODAY

Today, we are going to explore the world of edible bugs, also known as “entomophagy” (the fancy word for eating insects.) We will learn about the importance of considering how what we eat impacts not only the health of our bodies, but of the environment as well.

The human population is rapidly growing. We must consider ways to sustainably grow enough nutritious food for everyone. It is also important that we continue to expand our empathy and break down cultural barriers that can divide us. Exploring the cuisines of other cultures is a great way to do this.

DID YOU KNOW: OVER 2 BILLION PEOPLE ALREADY EAT BUGS AS A REGULAR PART OF THEIR DIET?!



3 BIG REASONS TO EAT BUGS

- **BUGS ARE SUSTAINABLE TO RAISE**
- **PACKED WITH NUTRITION**
- **CAN TASTE GREAT**

It will be important to remember these facts, because you will need to use what you learn to convince folks at home to try some of the bugs you prepare today.

We will make some bug snacks that you can enjoy and bring home to share. Your homework assignment is to get a friend or family member to consider trying a new food—hopefully a bug!

ANTS ON A LOG

A fun twist on a classic snack favorite.

SUPPLIES

Celery (cut)
Peanut Butter
Black Ants (or alternative bugs)

INSTRUCTIONS

- 1 Cut celery into thirds.
- 2 Spread enough peanut butter on each piece of celery to fill the center.
- 3 Select a few bugs to sprinkle over the tops of the peanut butter and celery combinations.
- 4 Enjoy!

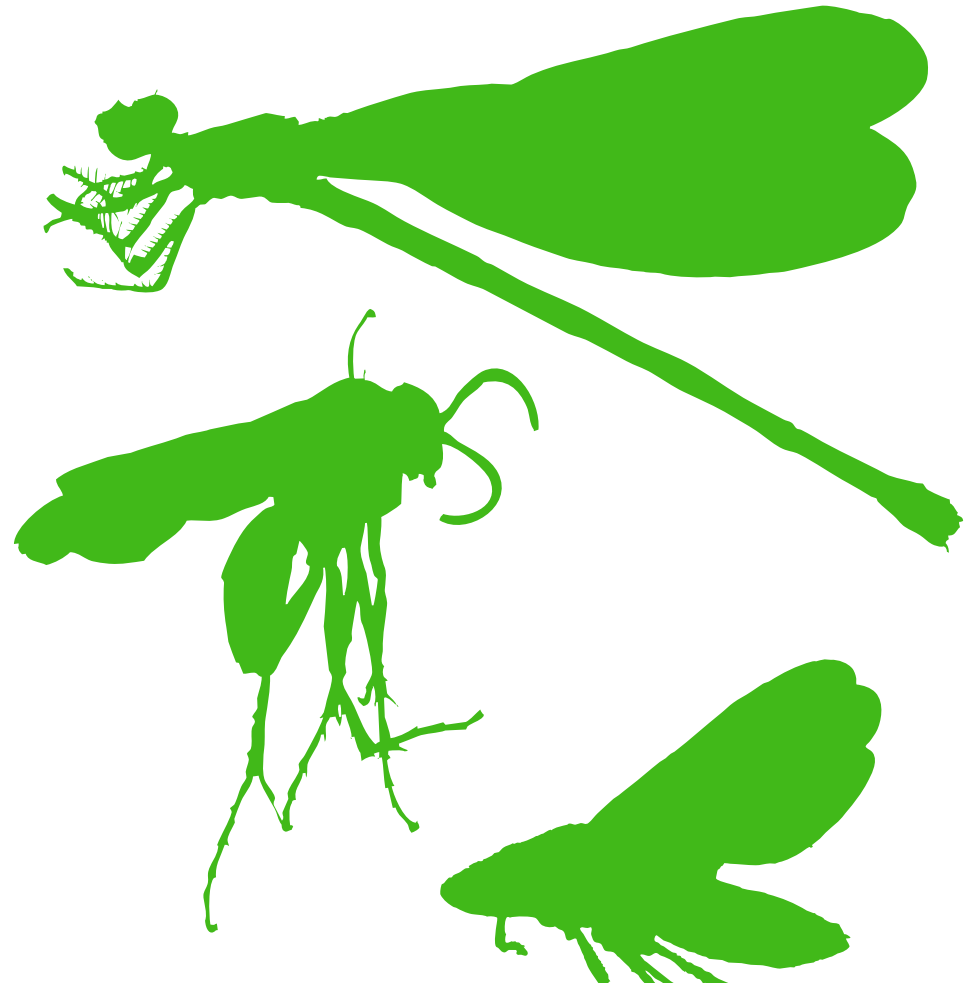


THE FUTURE — EATING BUGS

Imagine you are walking down grocery store aisles, trying to decide what to purchase for the protein portion of your dinner. As you walk through the frozen meat section, you have options including chicken, scallops, beef...or crickets!

This is the future we hope for. We must continue to educate the public to get there. We will likely see processed products like cricket baking flours or bug-based protein bars before we regularly see whole crickets in grocery stores.

While we are still far away from general acceptance of bugs as ingredients, companies have seen early success marketing to niche interest groups.



BUG BISCUITS

These simple treats show the sweeter side of bugs, while giving us the chance to celebrate their beauty.

SUPPLIES 2 Biscuits
2 Bugs
2 Spoonfuls of Jam

INSTRUCTIONS

- 1 Choose 2 biscuits (can use vanilla wafers or wheat thins).
- 2 Select a flavor of jam and place 1 spoonful of jam on each biscuit.
- 3 Select 1 bug to place in the center of the jam on top of the biscuit.
- 4 Enjoy!



Since bugs are naturally gluten free, companies have created products targeted to gluten-free markets. The performance-driven athletic market is also more likely to try new foods that are high in protein and other nutrients (which bugs are.)

A common question is: “If bugs are so nutritious, why don’t you just feed them to starving people in developing nations?” While it is true that bugs make an excellent “emergency food,” our goal is to make bugs an “everybody food.” If a product is initially marketed as an “emergency food,” it will be very difficult to re-brand it to more gourmet markets. In contrast, if a product is initially branded as a premium ingredient, it is very easy to market this product into any category.

Many cultures already eat bugs: cities in China serve fried crickets in bars instead of nuts; France is known for escargot; Cambodians snack on ants like popcorn; Oaxaca serves up amazing grasshopper tacos; and South Koreans make dishes using silkworm pupae.

Our end goal is to increase everyday global consumer demand for bugs, which will in turn attract more investment into the bug farming space.

Increased investments will lead to improvements in farming techniques and other innovations that can ultimately benefit populations that:

- 1 Already eat bugs
- 2 Would see decreased malnutrition rates if they had access to better farming technologies for micro-livestock (cows and other resource-intensive protein sources are difficult to raise in some climates.)

Logic says we should eat bugs. In educating the public about this new ingredient, we hope to open up a larger conversation about how what we eat impacts our bodies and the world around us. Food has the power to bring communities together. Food is emotional. If we are able to open our minds to foods like bugs of other cultures, we might also start breaking down additional cultural barriers and biases in the process.



BUTTERFLY BUG TRAIL MIX

A healthy snack that can be made in a huge variety of ways.
Bring home some extras for friends and family to try!

SUPPLIES

- 2 Pipe Cleaners
- 1 Clothespin
- 1 Snack Baggie
- 2 Googly Eyes + Adhesive
- Favorite Trail Mix Ingredients
- Favorite Bugs

INSTRUCTIONS

- 1 Adhere the googly eyes onto one side of the clothespin.
- 2 Fill a snack-sized baggie with your favorite mix of trail mix ingredients. To make sure that you have room to pin the bag, only fill it 1/3 of the way up.
- 3 Add your favorite bugs into the mix. Don't be afraid to try out different flavor combinations!
- 4 Clip the clothespin over the snack baggies.
- 5 Wrap two pipe cleaners together to form antennae shapes. Insert them into the top of the clips.



HOW YOU CAN HELP

The next generations can be the most effective ambassadors for the edible bug industry. Today's kids have a deeper concern for following environmental rules and less of a concern for following social rules—they're open minded. We'd love for the next generation to know about career options available to them in fields that have positive social impact.

YOU can make a difference. It is up to you to be an advocate for your community, an adventurer of the outdoors, an explorer of science and technology. **YOU** have the power to be a force of positive change.

BUG VENDORS

- **CHIRPS**
<https://www.eatchirps.com/>
- **MERCI MERCADO**
<https://www.mercimercado.com/>
- **ROCKY MOUNTAIN MICRO RANCH**
<https://www.rmmr.co/>
- **BITE**
<https://www.bitesnacks.com/>