

What BUGS Me

TEAM 8





You are now entering an apocalyptic era. Mankind's resources have run, and we are left to eat the basics of our environments. Plants and insects are main source of energy. Join us for some protein filled information!

Team ∞

earthworm

(Lumbricus terrestris)



EARTHWORM CHOW

- 1 c. earthworms
- 1 c. yogurt or sour cream
- 1/2 lg. onion, chopped
- 3 tbsp. butter
- 1/2 c. water
- 1/2 c. mushrooms
- 1 bouillon cube

Whole wheat flour

Wash earthworms thoroughly and place in boiling water for three minutes. Pour off water and repeat the boiling process twice. Bake on cookie sheet at 350 degrees F. for 15 minutes. Roll the worms in flour, brown in butter, add salt to taste. Add bouillon and simmer for 30 minutes. Saute onions and mushrooms in butter. Add onions and mushrooms to the worms. Stir in sour cream or yogurt. Serve over rice or noodles.

Morphology. Reddish brown worm. Size ranges from 20-25 cm long but has been known to be larger. Found in moist soils across North America, Europe, and Asia
Nutritional Value: ~70 calories per worm. 62.2% of the dry weight is protein, 17.7% is fat, and 1.72% is calcium

Grasshopper



Differential Grasshopper

(*Melanoplus differentialis*)

Size (Adult, Length): 28mm to 44mm

Colors: beige; black; ivory; green; white; yellow/pink

Area: Most of N. America except east coast and Northwest

Nutritional Value (100g): 110 calories, 5g fat, 5g carbohydrates, 20% daily calcium, 25% daily iron

Grasshopper Kebabs

Ingredients

12 Large Grasshoppers

1 white onion

1 red bell pepper

(Marinade)

2 tbsp mixed garden herbs (your choice)

Pinch of ground pepper

½ cup lemon juice

1 tsp honey

½ tsp fresh ginger

1 tbsp Dijon mustard

¼ tsp salt

1 tsp olive oil

Mix all ingredients for the marinade in a glass bowl. Add the grasshoppers, cover and leave in fridge overnight. Remove grasshoppers and gently pat them dry. Skewer ingredients alternating between pepper, onion, and grasshopper. Drizzle with olive oil and cook a few inches above fire for just under 10 minutes until golden brown and crispy.

Termites

Western Subterranean Termites

(*Reticulitermes hesperus*)



Identification:

1/8" long, soft bodied, no wings

Area:

British Columbia, Washington State, Oregon, Idaho, California, western Nevada and western Mexico.

Nutritional Value (100g):

613 Calories , 16.3g protein, 0.6g fat, 6.7g fibers.

Habitat:

Where moisture regularly collects inside the wall or other cavities of a building, say from faulty plumbing or broken roof tiles.

Termite Eggs Soup

Ingredients:

4 whole red chilies	2 crushed shallots
1 sliced stalk of lemongrass	3 slices of ginger
1/2 cup of sweet basil	1&1/2 cups of oyster mushroom
2 tbsp of thai fermented fish sauce	1&1/2 tbsp of chicken stock powder
250 grams of termites eggs	

Directions:

1. Put lemon grass, sliced ginger, crushed shallots , chilis, oyster mushroom into boiling water, cover for 2 minutes.
2. Put termite eggs, fish sauce, stock powder, stir well, cover and bring to boil.
3. Boil for 5 minutes, then add sweet basil.
4. Crush your chiles if you want to be spicy, stir well and serve.

Cricketets



Field Cricket

(*Gryllus pennsylvanicus*)

Size (Adult, Length): 15mm to 25mm

Colors: black; red; brown

Area: Most of N. America; All of Europe; Most of Asia, Coastland of S. America, Coast of Africa, All of Australia

Nutritional Value (100g): 121 calories, 12.9g protein, 5.5g fat, 5.1g carbohydrates, 75.8mg calcium, 9.5mg iron

Cricket Stir Fry

25g Whole Crickets

Garlic

Chives

Steamed Rice

Bacon

Cooking Oil

1 cup

Shallow fry the bacon until slightly crispy, add crickets and stir 15-20 seconds. Add shredded wild garlic and chives to suit your taste and stir again. Serve over hot steamed rice. Delicious!

Beetle

Mountain Pine Beetle (*Dendroctonus ponderosae*)



Size: measures approximately 5 mm, about the size of a grain of rice.

Color: It has a hard black and brown exoskeleton, sometimes with light brown specks

Location: Native to the forests of western North America from Mexico to central British Columbia

Nutritional Value (100g): Protein 17.2 g, Fat 4.3 g, Carbohydrates .2g, Calcium 30.9 mg, Iron 7.7 mg

Beetle Dip

Ingredients

- 2 cups of low-fat cottage cheese
- 1 ½ tsp. lemon juice
- 2 tbsp. skimmed milk
- ½ cup mayonnaise
- 1 tbsp. fresh parsley, chopped
- 1 tbsp. diced white onion
- 1 ½ tsp. coriander
- 1 ½ tsp. Beau Monde seasoning
- 1 cup dry-roasted rootworm beetles

Blend the cottage cheese, lemon juice and milk. Then slowly mix in the other ingredients, chill and serve with raw vegetables or chips.

HOUSE SPIDER

Large House Spider (*eratigena atrica*):



Size: Can span between 1 to 4 inches

Color: Dark brown with three light spots on each side

Location: Native to Europe, Asia but was introduced to Pacific Northwest

Nutritional Value (100g): 10g fat, 0g sugar, 64g protein

Deep Fried Spider

Ingredients:

Oil

De-fanged Spider

Salt and pepper to taste

Heat oil in a medium sauce pan. Make sure the spider is de-fanged before deep frying. Add spices of your choice. *Optional:* Put on a barbecue stick.

Mealworms

(*Tenebrio molitor*)



Size: 2.5cm

Color: Yellow Brown grub

Location: Found around the world due to human use

Nutritional Value (100g): 223 cal, 13g fat, 2g dietary fiber, 20g protein, 7g total carbs

Dried Mealworms:

Place your live mealworms in a colander and toss and rinse them under cool water. This is to remove any food and substrate from the worms. Be sure to pick out any dead worms or pupae.

Pat the worms dry with paper towels, place them in a container or plastic bag, and put them in the freezer for about fifteen minutes. This will quickly kill the worms.

Spread the mealworms out evenly on a non stick cookie sheet. If you are worried that the worms may stick, you can lightly grease the sheet.

Place the worms in an oven at 200 degrees and bake them for one to two hours until they are dry and crispy. Some people do not like the smell of baking worms and prefer to cook them outside on a gas grill set to a low temperature.

Acorn Weevil

Curculio nucum



Size: Ranges from 6 to 8.5 mm. The female's snout is as long as the rest of the body, with a reddish end. The male snout is about 1/3 shorter.

Color: The body cover is usually light brown, similar to the colour of mature hazelnuts. **Location:** Oak trees in North America & Europe

Nutritional Value (100g): Protein 6.7g, Iron 13.1g

Protein Weevil Shake

Ingredients

Palm Weevil Milk

Banana

Berries

Mix ingredients in a blender and enjoy! the Palm Weevil will provide a great source of protein for a post-workout meal!

scorpion

(Hottentotta Tamulus)



Size: Ranging from 9mm to 23cm

Color: Brown or Yellow

Location: Residing in virtually every kind of terrestrial habitat.

Usually found near tree holes or in small caves.

Nutrition Value (100g):

Carbohydrate: 7.5, Calories: 177,

Protein: 26.20, Vitamin E: 7.59,

Thiamine: 0.03, Fat: 4.7.

Deep Fried Scorpions:

Scorpion

Cold Water

Sesame Oil

Salt and Pepper to taste

First, cleanse all the scorpions with cold water and dry them up afterwards. Since the stingers of the edible scorpion species are not hazardous to human health, they do not need to be removed prior to the frying procedure. Then, prepare 200ml of sesame oil in a regular pan and heat the oil until bubbles start to come up to the surface of the oil. Subsequently, put all the dried scorpions into the pan and cover the pan. The frying process takes roughly 7 to 10 minutes. Salt and black pepper are highly recommended for seasoning.

CICADA

(Tettigarctidae Cicadidae)



Size: Ranging from 2 to 5 centimeters.
Color: Dark green
Location: Mostly found during summer on the surface of tree bark (More prevalent in warm regions).
Nutritious Value (100g): Amino Acid: 46.63, Protein: 58.58, Fat: 10.23, Calcium: 10

Blackened Cicadas with Grilled Onions and Peppers

INGREDIENTS

30-40 cicadas (gathered as they emerge from the ground, remove heads, legs and wings)
1 red pepper, thinly sliced
1 green pepper, thinly sliced
1 Tbsp. olive oil
1 1/2 Tbsp. Blackened Seasoning (recipe follows)
Salt and pepper to taste
1 Tbsp. butter
Charleston Cheese Grits (recipe follows)

PREPARATION

In a small saucepan, bring 2 cups water to boil. Add cicadas and boil 4-5 minutes. Drain and set aside. Grill peppers and onions until al dente, season with salt and pepper. Set aside.
Heat saute pan until hot. Add olive oil, then cicadas. Saute 1-2 minutes. Add Blackened Seasoning, onions and peppers. Saute 1-2 minutes more. Finish with butter.

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