

# ARCHAEOLOGY EDUCATION PROGRAM

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Mississippi  
Valley  
Archaeology  
Center

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This year's theme:  
Plant and Animals  
Remains

The theme of this year's Archaeology Education Program Newsletter is Plant and Animal Remains. The first issue provided an overview of wild plants, the second focused on cultivated plants, and this issue will discuss woodland animal resources. Dr. James Theler of the UW-La Crosse Soc/Arc Department and MVAC's Laboratory Director Dr. Connie Arzigian provided content information.

## Introduction

Native Americans and modern Wisconsin residents both rely heavily on hunting and fishing. Western Wisconsin's dissected landscape with many streams and rivers, coulees, wooded hillsides and broad upland plains provided the ideal habitat for abundant wild animals. Even when people began farming and growing crops, hunting and fishing remained the best source of protein in the diet, and was critical to survival. But animals also provided clothing, shelter and tools. It is clear that the white-tailed deer (*Odocoileus virginianus*) was the most important animal utilized by pre-European peoples, and remains very important today.

## Deer and Other Mammals

The fall-winter white-tailed deer provide the perfect package, in both size and quality of meat, fat and hide. Throughout history deer have been the most important native food for Native tribes south of the Great Lakes and east of the Plains. At least during some seasons, deer may have provided up to 80% of the meat in the diet. Deer bones are particularly common at Archaic and Woodland rockshelter sites occupied during the fall and winter in Western Wisconsin. These zones often contain hundreds or thousands of deer bones that have been broken open to remove the fat-rich marrow.

Other animals were also hunted, including some elk, bison and black bear. River otter and mink are found at many of the Oneota sites in La Crosse. Muskrat and beaver are also common, often represented by the skull parts, where the lower jaw (mandible) has been found with the incisors carefully removed, presumably to use the incisor as a wood-working tool.

## Domesticated Animals

In pre-European times the dog was the only domestic animal in the Midwest. Domestic dogs were associated with Native societies throughout most of North America over the past 10,000 years. They were important as pack animals, assistants in the hunt, village alarm systems, disposers of unused food, and sometimes as a food resource. Dog remains have been found at sites where they appear to have been used as food. One dog burial was found in 1932 in a mound in Grant County.

## Birds

Birds were also commonly used. The wild turkey is abundant, both for its meat, and also for the prized primary feathers, used for arrow fletching. Waterfowl included Canada geese and dabbling ducks. Both bones and eggshell have been found, suggesting spring harvest of waterfowl eggs and nesting birds. Raptors (hawks, owls, etc.) and crows and ravens are found in small numbers. Smaller perching birds are rare or absent except for the red-winged blackbird that is found in Oneota sites. The bones of this species are sometimes found charred, suggesting they were used as food. The birds are common agricultural pests and also raid wild rice beds, and would have been a common resident near villages and cornfields.



# Ancient Recipes

Deer were the main food source for Wisconsin's early Native Americans for thousands of years, probably dating back to the Archaic culture (6,000 years before present). While not solely dependent on deer meat for subsistence, modern hunters enjoy the rewards of harvesting deer as did the early Native Americans. Most wild game has less fat than domesticated animals. Factors affecting the fat content of individual animals include age, diet, living conditions and exercise. Game animals usually get more exercise - which can make their meat leaner and sometimes less tender.

## Jerky Venison

1/2 cup soy sauce	1 tsp. black pepper
1/4 cup worcestershire sauce	1 tsp. garlic powder
1 lb. venison (hind quarter, partially frozen)	1/4 tsp. liquid smoke

1. Slice venison with the grain of the meat. Slices should be about 1/3" thick.
2. Add all ingredients into a bowl, marinate in refrigerator overnight, making sure to rotate meat.
3. Line bottom of oven with foil. Place strips of meat on oven racks.
4. Cook in 200 degrees F oven for 4 hours, then turn and cook an additional 4 hours. Meat should be firm, if meat is soft it is not yet done.
5. Let cool, place in a plastic bag for storage.

## Venison Spice

1 cup garlic powder	1 cup beef bouillon granules
1 cup thyme	1/2 cup black pepper
1 cup chopped rosemary	1/2 cup salt

1. Mix all ingredients and put in shaker. Can be used on any wild game.
- Suggestion: Can also add a large chopped onion, and shake on some Worcestershire sauce.

## Venison in Barbecue Sauce

3 1/2 lb. venison roast, shredded or cut into serving pieces	
2 cups barbecue sauce	3 Tbs. liquid smoke
1 lg. onion, chopped	8 oz. can tomato sauce
1 garlic clove, chopped	

1. Preheat oven to 350 degrees.
2. Place meat in a baking dish.
3. Mix remaining ingredients, pour over meat.
4. Place meat in oven, cook slowly for about 1 1/2 hours.
5. Serve hot on warmed sandwich buns.

## Venison Wild Rice Stew

Cut one venison shoulder into stew meat. Brown in frying pan. Put into crock pot and add water until pot is 3/4 full. Boil until tender. Drain broth through colander to remove fat tallow. Set meat aside. Cook wild rice in broth. Return meat to pot, along with diced potatoes and carrots. Salt and pepper to taste. Onions optional. Simmer for 1 to 1 1/2 hours.

All recipes taken from *Tribal Cooking: Traditional Stories and Favorite Recipes*, Great Lakes Inter-Tribal Council, Inc., 1996.



# Deer as a Resource

Virtually every part of the deer was used in some way by native peoples. It was probably the most useful animal in the Upper Mississippi Valley, and continues to be important today. These are some of the ways we know that the white-tailed deer was used by early peoples.

1. The animal's skin, or \_\_\_\_\_ was used for clothing, tent coverings, moccasins. It would take six deerskins to clothe a man, eight for a woman, adding a skirt (Gramly 1977). These would need to be replaced every year or so. This could also be cut into narrow strips for rawhide or to make rope, thread equivalents and bindings.

2. \_\_\_\_\_ was used for stuffing various items, including moccasin linings.

3. The \_\_\_\_\_ was eaten or used in the hide tanning process.

4. Deer \_\_\_\_\_ was extremely important in the native diet. It could be dried for storage by cutting into strips and drying in the sun or over a slow fire. Pemmican was made by crushing dried deer \_\_\_\_\_ with berries, nuts, and fat boiled from the bones. Pemmican was a storable and fat-rich food, important when other foods were not available fresh, or when hunting was not feasible, such as when traveling.

5. \_\_\_\_\_ were broken for the bone marrow, a good nutrition source rich in fat and calories. Native peoples needed the calories and fat, particularly in the winter. The long tubular \_\_\_\_\_ could be split and the marrow removed; the smaller and more irregular ones were pounded until crushed, and then the whole mass boiled to extract the fat. These were also used for tools. The ulna made a good awl with only a bit of resharpening required. Slivers of long \_\_\_\_\_ could be used as needles to make the buckskin clothing and moccasins. The mandibles were used as scraping tools. Lower leg \_\_\_\_\_ could be used as beaming tools for defleshing hides by scraping over them.

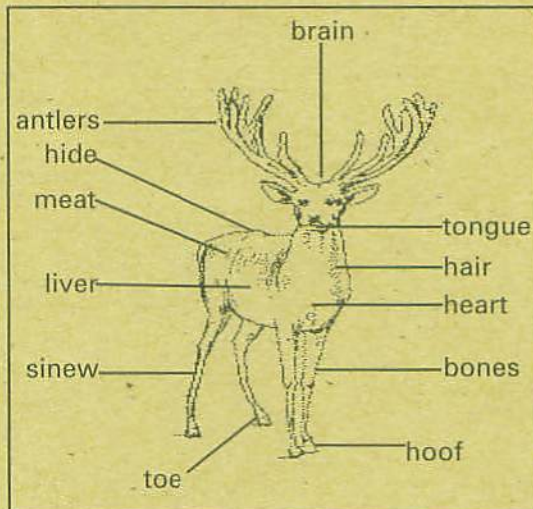
6. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and other organs were undoubtedly prized as delicacies.

7. The \_\_\_\_\_ were made into handles for tools, or used for flintknapping. The tines were cut off and drilled out to be made into projectile points. Slivers of the \_\_\_\_\_ were cut out, boiled and then shaped into ornaments, needles, awls, and other tools.

8. The third phalanx or \_\_\_\_\_ could be drilled for use as a projectile point.

9. The horny keratin sheaths covering the \_\_\_\_\_ and dewclaw could be removed through boiling and made into rattles, or used as ornaments to leggings and other clothing. The glue from the inner lining of the \_\_\_\_\_ made a good glue for bindings.

10. \_\_\_\_\_ from the long bones and the back of the metatarsals and metacarpals was important for bindings also. Wet, it could be stretched tight, and as it dried it tightened even more, to make a sturdy fastening for projectile points, knives, and so forth. The \_\_\_\_\_ was used for bows, and as string, sometimes either braided or woven.



*Complete the sentences below using the labels from the picture. Labels can be used more than once within the same paragraph.*

Answers:

1. hide
2. hair
3. brain
4. meat, meat
5. bones, bones, bones, bones
6. tongue, heart, liver
7. antlers, antlers
8. toe
9. hoof, hoof
10. sinew, sinew



# Wild Animal Resources

*These book reviews, websites, and places to visit can be used as supplemental information. Let us know if you have found any great resources we can share with our readers.*

## Book Reviews

**Title:** Deerskins and Hunting Territories

**Author:** Richard Michael Gramly

**Publisher:** American Antiquity, Volume 42, No. 4, October 1977

**Age Range:** teachers, adults

Scientific article on the scarcity of deerhides for the early Native Americans of the Northeast and Ontario. Details the use of deerhides, and the affect shortages of hides imposed on the people.

**Title:** Tribal Cooking

**Author:** Great Lakes Inter-Tribal Council, Inc.

**Publisher:** Great Lakes Inter-Tribal Council, Inc., 1996

**Age Range:** 10 - adult

Recipes and stories geared to children and adults, with instructions and related stories

**Title:** Animal Remains from Native American Archaeological Sites in Western Wisconsin

**Author:** James L. Theler

**Publisher:** UW-La Crosse Soc/Arc Department, 2000

**Age Range:** 14 - adult

Focused discussion on the use of animals of western Wisconsin by the early Native Americans of the area. Outlines specific uses of mammals, birds, fish, amphibians, reptiles, crayfish and freshwater mussels from sites in the state.

## Web Sites

**Ohio Historical Society**

<http://www.ohiohistory.com/resource/teachers/teachpag/grocery.html>

The Ohio Historical Society Teacher Curriculum, with lesson plans detailing the "groceries" used by the Paleoindians.

**Native American Recipes**

<http://www.nativetech.org/food/>

Some Native American Recipes contributed by visitors.

## Places to Visit

**UW-La Crosse Archaeology Center and Laboratories, La Crosse, Wisconsin**

Visit the newly remodeled campus laboratory facility. Exhibits contain many important findings from recent excavations, information about the field of archaeology, and paintings depicting the lifestyle of western Wisconsin's previous inhabitants. Call MVAC at 608-785-8454 for hours of operation. See page 3 of Archaeology News for special dates and times the lab will be open in March.

**Perrot State Park, in Trempealeau, Wisconsin**

The Black Walnut Trail at Perrot State Park utilizes trail guides and periodic signage on the trail to take hikers through a "Native American Supermarket." Information is given on early uses of wild plants and animals, and natural rockshelters by early Native Americans.