

# OSTRICH FERN FIDDLEHEADS

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Above (L): Fiddleheads just bursting from their crown in springtime.

Above (R): Ferns ready for harvest. Photos by D. Wilsey. Below: Fiddleheads at market fetch a nice price! Photo by D. Fuller.



## LIFE FORM

Fern

## PART USED

Immature fern frond

## SCIENTIFIC NAME

*Matteucia struthiopteris*

## COMMON

Ostrich fern fiddlehead

## OJIBWE

Wewaagaagin

## HMONG

Kaus Suab

## SPANISH

Helechos de águila



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## CAUTIONS

There are numerous types of ferns, and most begin growth as fiddleheads. It is important to be able to recognize the following key characteristics of the ostrich fern:

- U-shaped groove
- Papery scales on early growth
- Groove on fertile frond.

**Crown:** The clump from which fiddleheads emerge each spring. The crowns remain after the delicate green ferns die back.

**Alluvial:** Fine grain soil that results from rivers—past or present—flowing over flood plains.

**Perennial:** A plant for which growth recurs yearly from the same root stock, as compared to plants that reseed and begin anew each spring.

## Key Characteristics

### PRODUCT

- Look for ostrich ferns in floodplains and in soils with high organic matter.

### HARVEST

- Fiddleheads emerge in early spring; the timing of their emergence varies by site.

### SOCIO-ECONOMIC

- In some places, fiddleheads are much appreciated by market consumers.
- Fiddlehead consumption is quite popular among certain populations of Asian descent and in immigrant communities, particularly in the Pacific Northwest.

### REGULATORY

- Get landowner permission before picking fiddleheads.

### CAUTIONS

- While a toxin has not been identified in the fiddleheads of the ostrich fern, it is recommended that fiddleheads be cooked thoroughly before eating.

## Location

### DISTRIBUTION

Ostrich fern is widely distributed across the United States from Maine to Virginia and northwestward to Washington. Likewise, ostrich ferns can be found throughout Minnesota, but only where site conditions are appropriate. Cold temperatures can kill exposed crowns that do not have adequate snow cover.

### HABITAT

Ostrich fern prefers moist - not wet - sites with alluvial soils in floodplains of rivers and streams in association with silver and red maples and brown ash. They will also grow successfully on upland soils with high levels of organic matter in light to medium shade.

## Identification

### DESCRIPTION

Ostrich fern is a perennial fern that grows in a clump called a crown that dies back to the ground each fall. The fern produces both sterile and fertile fronds, though the latter is not produced on all crowns. Mature sterile frond height is 3-5 feet tall and the fertile frond is 1-2 feet tall. The fertile frond turns brown later in the season and can persist for one year or more. There are three ways to identify ostrich fern fiddleheads in spring:

- The deep, u-shaped groove on the inside of the stem (see image next page).
- The thin, brown, paper-like scales that cover the newly emerging fiddleheads. The scales fall off as the fiddlehead grows and elongates.
- The fertile frond that bears spores is distinctive in shape and also has a

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Above: The U-shaped groove and remnant of the papery scale of a harvested ostrich fern fiddlehead. Photo by D. Wilsey.

groove on the inside of the stem. When present during harvest time, the previous year's fertile frond will be dark brown in color. Not all ostrich fern crowns will have fertile fronds.

Later in the season, fully grown ostrich ferns have other identifying features. With the help of a field guide, you can better identify mature ostrich ferns for future harvest.

## CAUTION (LOOK-ALIKES)

It is important to properly identify ostrich ferns. Bracken ferns, for example, can cause cancer and other problems in livestock. Not enough is known about other ferns to recommend eating them. Ostrich fern fiddleheads are neither toxic nor carcinogenic. Bracken fern fiddleheads are fuzzy, lack the brown paper-like covering and U-shaped groove on the inside of the stem.

## Uses

### GENERAL

Fiddlehead ferns are typically eaten as a cooked vegetable.

### SOCIO-CULTURAL

Fiddleheads long have been important to North America's indigenous peoples. They use fiddleheads for food and some use them as medicine for backaches.

### ECONOMIC

Although the market for fiddleheads in Minnesota is not well developed, fiddleheads are an important source of income for harvesters and woodlot owners in other states, particularly in the northeastern United States. Retail prices vary from a low of \$2.50/pound roadside in Maine to \$15/pound at upscale markets in Oregon.

## Harvest

### WHAT TO HARVEST

Fiddleheads are harvested just as they begin to grow from the crowns. The tightly coiled fern and 2-6 inches of stem are the edible portion.

### WHEN TO HARVEST

Fiddleheads emerge in early spring. Often the only green visible in the early spring woods is from the emerging ramps and fiddleheads.

### HOW TO HARVEST

Fiddleheads can be picked either by snapping them off or by cutting them. Be careful not to cut remaining fiddleheads, which will produce food for the next year's crop.

### CAUTION

Research by the University of Maine suggests that picking all the fiddleheads on a crown over a series of four years results in the decline and often death of the fern. Pick-



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## REFERENCES

Bolton, J., Bushway, A., Fuller, D., & El-Beegarmi, M. (2012). *Bulletin #4198, Facts on Fiddleheads*. University of Maine Cooperative Extension Publications. Retrieved from <http://z.umn.edu/na1>

Fuller, D. (2012). *Bulletin #2540. Ostrich Fern Fiddleheads*. University of Maine Cooperative Extension Publications. Retrieved from <http://z.umn.edu/na2>

ing up to one-half of the emerged fiddleheads, with no follow up harvest of later-emerging fiddleheads, appears to be sustainable. It is further suggested harvesting from crowns having at least four fiddleheads. The harvest impact on young or weak crowns having fewer fiddleheads is not known.

## Handling

### STORAGE AND TRANSPORT

Quality is best when fiddleheads are kept dry and cool. Make sure to harvest into clean containers. Use potable water to wash fiddleheads, never stream or river water. Fiddleheads can be stored under refrigeration for up to one week.

### PREPARATIONS AND PROCESSING

Fiddleheads can be blanched and frozen. They can also be pickled. For preparation instructions and food safety information, please refer to University of Maine Cooperative Extension's Bulletin #4198, "Facts on Fiddleheads".

The papery covering on fiddleheads is most easily removed when it is dry. Small amounts of fiddleheads can be cleaned by rubbing the covering loose. Larger amounts can be winnowed in front of a fan which helps blow the papery covering off.

### CAUTION

The Centers for Disease Control has investigated a number of food-borne illness outbreaks associated with fiddleheads. The implicated ferns were eaten either raw or lightly cooked (sautéed, parboiled or microwaved). Although a toxin has not been identified, the findings suggest that you should cook fiddleheads thoroughly before eating (boil them for at least 10 minutes).

kets, restaurants, roadside stands, supermarkets and mail order. Sellers can charge higher prices for dry - not dried - fiddleheads whose papery covering has been removed. Include cooking directions when marketing directly to the consumer.

## Regulations

As responsible stewards of our lands, individuals are responsible for checking all regional and local park rules to ensure compliance with the law.

Fiddleheads may not legally be gathered from state forests, parks, recreation areas or waysides in Minnesota. Minnesota Rule 6100.0900 Subpart 2E states that, "Collecting or possessing naturally occurring plants in a fresh state in state parks is prohibited." Likewise, Minnesota Rule 6136.0400 Subpart 2 prohibits foraging of all edibles in scientific and natural areas (SNA). "It is unlawful for any person to destroy, injure, damage, molest, or remove any natural resources within scientific and natural areas. . . ."

Minnesota trespass laws prohibit individuals from foraging on private lands. Minnesota Statute 609.605 states, "A person is guilty of a misdemeanor if [that] person intentionally . . . enters the premises of another with intent to take or injure any fruit, fruit trees, or vegetables growing on the premises, without the permission of the owner or occupant."

Always seek written permission of private landowners and do your part to build positive relationships. Many landowners, if asked, would be happy to allow foraging on their lands. Consider offering the landowner a price per pound or some cleaned fiddleheads in exchange for access.

## Markets

Market fiddleheads through farmers mar-