Crawfish, crawdads, and crayfish are synonymous names for this abundant crustacean. Louisianans most often say crawfish, whereas Northerners are more likely to say crayfish. People from the West Coast, Arkansas, Oklahoma, and Kansas often use the term crawdad. But what are they?

Typically living in freshwater, these crustaceans have the appearance of a lobster but are much smaller in size. They are two to three inches long with a lifespan from five to ten years. So far, out of 300 to 400 crawdad species in the United States, nine species of crawdads have been found in California. The Shasta Crayfish is the only surviving native species to California and is listed as critically endangered under the U.S. Endangered Species Act. The Sooty Crayfish was declared extinct in 1977. There have been other species introduced into California although they are considered invasive. Continued on page 2...
Invasive crawdads such as the red swamp crawdad or signal crawdad are typical species found in the Delta. They are a threat to the food chain competing for food as a predator to small fishes and eggs of other aquatic creatures. In agriculture, they can be pests burrowing into banks and levees, as well as eating young rice plants. To control the population of invasive crawdads, the government uses a method of trap and removal. To help to keep crawdad numbers down, the public is also welcome to capture crawdads for personal consumption and for commercial purposes.

The majority of crawdads in the Delta that enter the commercial crawdad fishery are signal crawdads and occasionally the red swamp species. The only commercial crawdad operation in the Delta is run by Phil Clark. He has been in the crawdad business for more than 30 years. Clark sells around 150 pounds of crawdads per week to distributors in the Bay Area, but also sells directly to festivals and other events. However, most crawdads consumed in California do not come from the Delta, they come from Texas and Louisiana, with many more farmed, packaged, and imported from China.

Like with all California fishery-related regulations, there are rules in place for the take of crawdads. Permits are required for the commercial take or take by boat, including trapping crawdads for bait. For non-commercial take of crawdads, there is no bag limit and you can catch them by hand, hook and line, dip net, or with traps three feet or less in dimension year-round, but you do need to have a California fishing license.

Crawdad Regulations

Please review all regulations for up-to-date commercial and non-commercial take of crawdads in California.

Freshwater Sport Fishing Regulations
wildlife.ca.gov/Fishing/Inland

Commercial Regulations
wildlife.ca.gov/Licensing/Commercial
How to Clean and Cook Crawdads

Step 1
Fill a large bowl with cold water and live crawdads. Carefully stir the crawdads to remove dirt and other objects. Dead crawdads will float and should be removed - they are not safe to eat!

Step 2
Empty the dirty water, then refill the bowl and wash the crawdads again. Add 1 cup of salt and let the crawdads soak for 20 minutes.

Step 3
Continue repeating Step 2 until the water and crawdads appear clean. This may take up to 5 attempts.

Step 4
Fill a large pot with water and bring to a boil. Add 4 to 5 Tbsp. of a pre-made Cajun spice mix.

Step 5
Add the crawdads to the pot and bring the water back to a boil. Once the water begins to boil again, set a timer for 5 minutes.

Step 6
After boiling the crawdads for 5 minutes, take the pot off the stove and let the crawdads soak in the hot water for 20 to 30 minutes to increase the flavor.

Step 7
Carefully strain the crawdads and move them to a serving dish.

Step 8
Serve and eat immediately with lemon, hot sauce, and melted butter flavored with the Cajun spice mix.
The lower Alhambra Valley south of Downtown Martinez is typical of many Bay Area suburban areas developed during the mid-20th Century. The expansive Alhambra Avenue lies in the middle of the valley, bisected by the Highway 4 freeway, connecting a range of restaurants, automotive businesses, motels, banks, offices, and public buildings. Single-family homes hang precariously from the hillsides.

Step inside the gates of the John Muir National Historic Site at the intersection of Alhambra Avenue and Highway 4, however, and current-day Martinez seems very far away. The grounds recall how the area appeared when Muir and his wife Louisa (nicknamed “Louie”) owned and farmed a 2,600-acre ranch. The National Historic Site includes a visitor’s center, the Muir family’s Victorian mansion, carriage house, windmill, orchards and vineyard, family gravesite, and Mount Wanda wilderness, and the Vincente Martinez Adobe (see sidebar).

Muir had gained fame as a writer by the time he married Louie Strentzel and moved to Martinez to work on his father-in-law’s fruit ranch. The newlyweds moved into Dr. John and Louisiana Strentzel’s former house, while the Strentzels built the mansion that would later become the Muirs’ house. The Muirs had two daughters, Wanda and Helen, and John adapted himself to a farmer’s life after years of travels.

The National Historic Site provides insight into Muir’s personal and professional life. He loved to hike around the mountain south of the mansion with his daughters and named the two peaks after them. Mount Wanda became part of the National Historic Site in the 1990s with assistance from the John Muir Land Trust. Trails traverse different...
types of California habitat and provide views of the Carquinez Strait, Mount Diablo, and surrounding hills.

The property’s orchard and vineyard pay homage to John Strentzel, who was a prominent local physician and pioneer in California horticulture. The property contains portions of the orchards that made Strentzel famous in his own right and features apple, apricot, fig, lemon, olives, orange, peach, pears, pecan, plum, pomegranate, and quince trees as well as three varieties of grapes. Just like Strentzel, farming made Muir a wealthy man, but he did not have his father-in-law’s love for horticulture and soon longed for a different type of life: “I am losing precious days. I am degenerating into a machine for making money. I am learning nothing in this trivial world of men. I must break away and get out into the mountains to learn the news.”

Muir was a dedicated husband and father, but he retired from active farming and began to travel around the West, including his beloved Yosemite, and advocate for natural preservation through his writings and lectures. Martinez still remained his home base, though.

The primary destination for visitors is the 17-room, 10,000 square foot mansion, which is perched on a prominent hill overlooking the valley. The house and surrounding property were rescued from demolition and development by Faire and Henry Sax in the mid-1950s. The Saxes interviewed Muir’s surviving daughter, Helen, while painstakingly restoring the formerly derelict house and worked with a local organization, the John Muir Memorial Association, to obtain federal or state recognition for the property, which culminated with National Historic Site status in 1964. Many of the furnishings and décor are appropriate for the time period when the Muir family lived there and reflect Helen’s recollections.

One of the highlights of the mansion – and the National Park System – is the “Scribble Den”, the upstairs room where Muir wrote many of the books and articles that helped found the preservation movement, expand the boundaries of Yosemite National Park, create several National Parks including Grand Canyon, Kings Canyon, Petrified Forest, and Mount Rainer, and establish the National Park Service (though he died two years before the federal agency was created). His original desk is the centerpiece of the room. Another spot in the mansion that reflects Muir’s influence is the den he built after the 1906 San Francisco earthquake damaged the house. The large brick fireplace would easily suit a mountain cabin.

The home site is free to tour seven days a week from 10 AM to 5 PM. Mount Wanda is open from sunrise to sunset. The Strentzel and Muir family gravesite, which is located in a residential area, is available for tours three days a week.

For more information, visit the National Historic Site website: nps.gov/jomu/index.htm

VICENTE MARTINEZ ADOBE

The John Muir National Historic Site features a landmark from another era of California’s history, the Vincente Martinez Adobe. Martinez built a two-story adobe house around 1849 on the rancho he inherited from his father, Ygnacio Martinez, the Comandante of the San Francisco Presidio and namesake of the nearby town. The adobe, which served as a home for Wanda Muir and her husband, is part of the Juan Bautista De Anza National Historic Trail.

Learn more about the trail at anzahistorictrail.org
From the late 1850s to 1920s, thousands of Chinese laborers contributed heavily towards the Sacramento-San Joaquin Delta agricultural cultivation and growth. Experienced in working the land, workers also grew their own vegetable gardens. Gardens served more than just to feed, it became a social activity, especially for women. Women got together to tend to their gardens while taking breaks in between to chat about their day.

The public can visit a 2500 square foot demonstration garden to see how Locke residents utilized their backyards for growing crops. The demonstration garden was passed down from a previous resident, Connie King. Connie regularly tended to her plot of land and visitors often found her caring for her plants. With delight, she gave them a tour of her garden and taught them about the history of Locke. Today, Locke Foundation volunteers care for the garden and have transformed it into a place for visitors to learn and appreciate. Other community gardens in Locke also grow a variety of fruit, vegetables, and spices.
You’ll know you’re right outside the doorstep of the Locke demonstration garden when you’re greeted by a welcome sign for visitors and an assortment of whimsical cacti and succulents planted in toilet bowls. Visitors are welcome to enter the garden anytime they’d like. In the garden, you’ll find a variety of Chinese vegetables growing depending on the season. At the end of this spring season, expect to find up to six traditional Chinese vegetables growing including hulu gwa (gourd - pictured below) don gwa (winter melon - pictured top right), and dow gok (long beans - pictured bottom right).

These vegetables may not always be found in grocery stores, but they are definitely a staple for Locke residents. The vegetables grown in the garden is a representation of what previous residents grew and ate in their homeland. The majority of the original Locke residents came from Guangdong Province, China. The Locke demonstration garden is an important aspect to the Locke community, teaching visitors about different kinds of traditional Chinese vegetables and getting to know undiscovered snippets of historic Locke.
Delta Agency Meetings & Events

**May**
- May 21 - Delta Protection Commission Meeting
  [delta.ca.gov/commission-meetings]
- May 27 - Delta Conservancy Board Meeting
  [deltaconservancy.ca.gov/board-meeting-materials]
- May TBD - Delta Stewardship Council Meeting
  [deltacouncil.ca.gov/council-meetings]

**June**
- Jun 2 - Delta Heritage Forum - POSTPONED
  [delta.ca.gov/NHA]
- Jun 25 - Delta Stewardship Council Meeting
  [deltacouncil.ca.gov/council-meetings]

COVID-19 Relief Resources in the Delta

The information provided includes COVID-19 updates and relief resources for small businesses and families in the five Delta counties affected by COVID-19.

**Sacramento County**
- General information and updates
  [saccounty.net]
- Small Business Development Center
  [capitalregionsbdc.com]
- Food distribution and other family services offered in Isleton, Walnut Grove, and Courtland by South County Services
  [southcountyservices.net]

**San Joaquin County**
- General information and updates
  [sjcphs.org]
- Small Business Development Center
  [sanjoaquinsbdc.org]

**Contra Costa County**
- General information and updates
  [contracosta.ca.gov]
- Relief fund
  [ehsd.org]
- Small Business Development Center
  [contracostasbdc.org]

**Solano County**
- General information and updates
  [solanocounty.com]
- Small Business Development Center
  [solanosbdc.org]

**Yolo County**
- General information and updates
  [yolocounty.org]
- Relief fund
  [yolocf.org]