CDFA
Aquatic Invasives
Nutria and Hydrilla

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California Department of Food
and Agriculture

Nutria
History in California

Nutria

- Late March 2017 Wildlife Services trapper conducting beaver damage management caught one animal near Gustine, CA
- CDFW Wildlife Investigations Lab determined it was a pregnant female carrying 7 young.
- CDFW (lead agency), CDFA, State Parks, US Fish Wildlife Service, USDA Wildlife Services private hunting clubs, irrigation districts.
- Trail camera monitoring (lure from Wildlife Services Chesapeake Bay Nutria Eradication)
- Reported sightings on two State Park properties: Merced River near Delhi and Grasslands

Nutria

- Semi-aquatic rodent. Prefers emergent marsh with shallow water.
- Body length: 2’, tail length: 1’-1.5’
- Weight: 15-20 lbs.
- White whiskers, golden hair near ears, round rat-like tail.
- Sexually mature at 4-6 months. Produce first litter at 8 months. 2-3 litters per year of 2-13 young. Mother can breed 48 hours after giving birth.
- Consumes 10% of body weight per day. Discards 80% of vegetation during feeding.

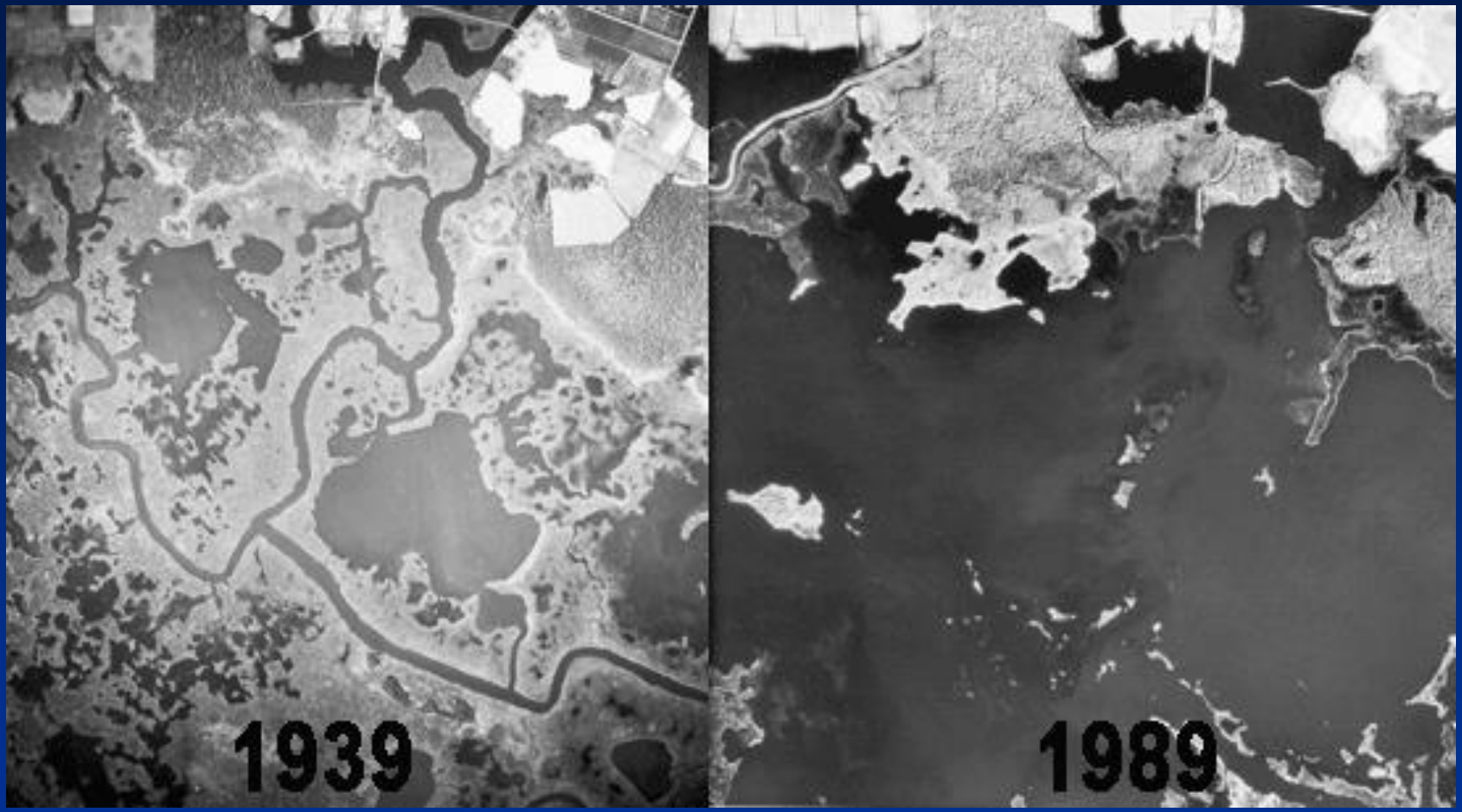
Nutria trapped in Merced County

Nutria photographed in Tuolumne County. Note golden hairs near ear and white muzzle/whiskers.

Nutria eat out in Merced County

Louisiana Wildlife and Fisheries

http://www.nutria.com/site4.php



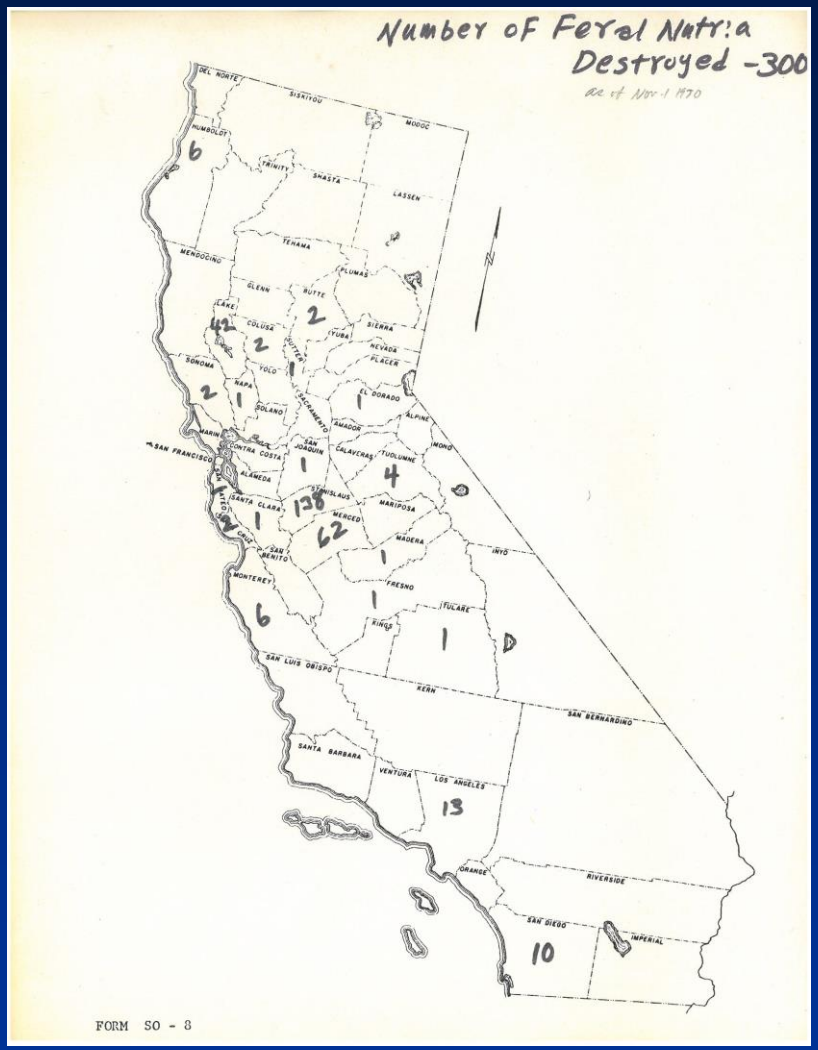
Nutria damage, Chesapeake Bay
Blackwater Nat. Wildlife Refuge

Nutria History

- 1948 – Stanislaus County escape from fur farm near Oakdale
- 1959 – Nutria permitting transferred to CDFA (324 licenses)
- 1965 – Los Angeles County, 13 animals from Dominguez Canal
- 1971 – last year with 3 licensed fur farmers


THE MONTHLY BULLETIN
VOL. 19
1930
VOL. 20
1931

1965	28	Los Angeles	13 animals Dominguez Channel, Wilmington, CA
1964	54		19
1963	111		Ag Code Sec 165.1 increased Nutria permit fee. 2 animals trapped near Healdsburg, 15 miles river surveyed. Report near Jacksonville, Tuolumne County. Report San Joaquin River between Fresno-Madera east of Hwy 99.
1962	147	Sutter, ElDorado, Butte	1 animal Sutter Basin, 1 animal 8 miles east Placerville, 1 animal Owen's property south of Oroville, Snelling Merced no animals trapped
1961	223	ElDorado, Lake, Los Angeles, Merced, San Diego and Tulare	42 animals captured Lake County mouth of Cole Creek, Tulare one animal trapped, Snelling in Merced none found, SanDiego 10 animals trapped (9 Grossmont, 1 from San Diego River gravel pit), Los Angeles 10 animals trapped at Griffith Park Zoo.
1960	280	Merced, Napa, Sonoma, Santa Cruz, Santa Clara, Humboldt and Tulare	1 trapped near Snelling Merced County. Escaped animals trapped and destroyed in remaining counties. No numbers given. Report of multiple fur growers being cited for failing to maintain their enclosures. Numerous reports of loose animals turned out to be muskrats.
1959	324	Merced, Fresno, Monterey	Nutria law transferred from CDFG to CDFA/County Ag. July 1, 1958. Merced near Snellin 60 animals, Fresno 1 animal in irrigation ditch near site of overturned truckload, Monterey 6 animals trapped
1958	n/a	n/a	n/a not mentioned in Bulletin
1957	n/a	Sutter, Merced and Sonoma	Mention flooding escape near Yuba City, Merced 1 animal at mouth of Merced River, Sonoma 1 animal Russian River near Cloverdale
1956	n/a	Stanislaus, Sutter	Reports of Nutria tracks in two locations (one a known site of prior trapping) no animals confirmed. Sutter a Yuba City breeders entire population was drowned. No escaped animals found. CDFG permiting for breeders suggested 2300-2400 animals in California.
1955	n/a	n/a	n/a not mentioned in Bulletin
1954	n/a	n/a	mentions numerous farms, need for permits and pen inspection from CA Dept. Fish and Game
1953	n/a	Stanislaus	Stanislaus surveys found only one location infested. Population being left alone to dertermine pest nature. Comment that Nutria are now being raised for fur across California, it has not been determined whether feral Coypu should be regarded as pests.
1952	n/a	Stanislaus	Survey known areas, no animals found. Comment that Coypu were not found to cause damage in other states where they've excaped.
1951	n/a	Stanislaus	Over 100 animals killed near Oakdale. Survey of 150 square miles Stanislaus and San Joaquin County. Boat survey of Tuolumne, Stanislaus and San Joaquin Rivers.
1950	n/a	Stanislaus	23+ animals trapped in swamps near original fur farm south of Oakdale
1949	n/a	n/a	n/a not mentioned in Bulletin
1948	n/a	Stanislaus	First mention of Nutria. Fur Farm 4 miles south of Oakdale received 5 males, 13 females and 23 young. Many escaped and were inhabiting marshes and canals causing damage. 10 animals had been trapped.



A huge South American rodent with an appetite like an incinerator is eating its way into the U.S. The question is—can it be stopped?

By HART STILWELL

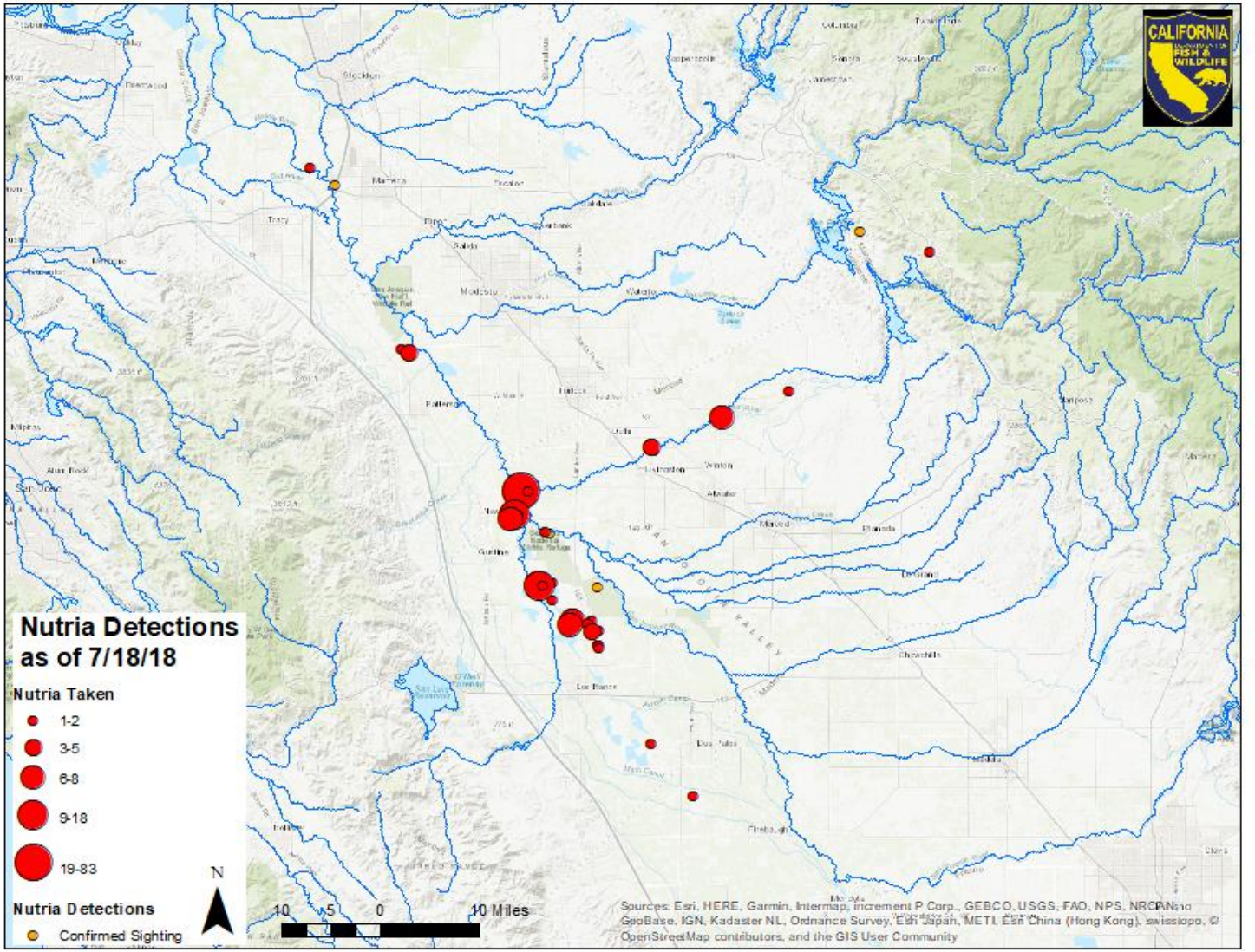
Photograph by H. M. MASON, JR.

Map by GLEN COLTON

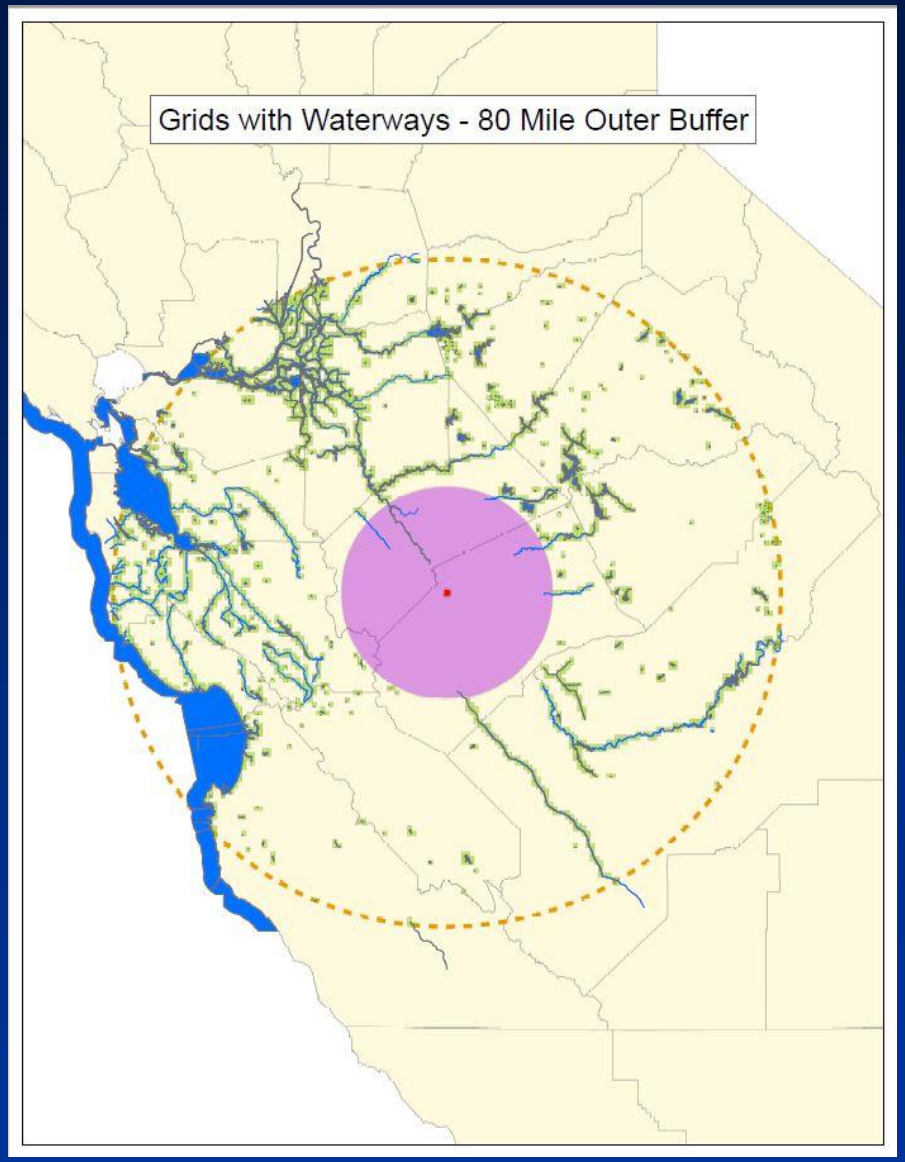
About NUTRIA and their control

U.S. Department of the Interior
Bureau of Sport Fisheries and Wildlife

Nutria confirmed in California

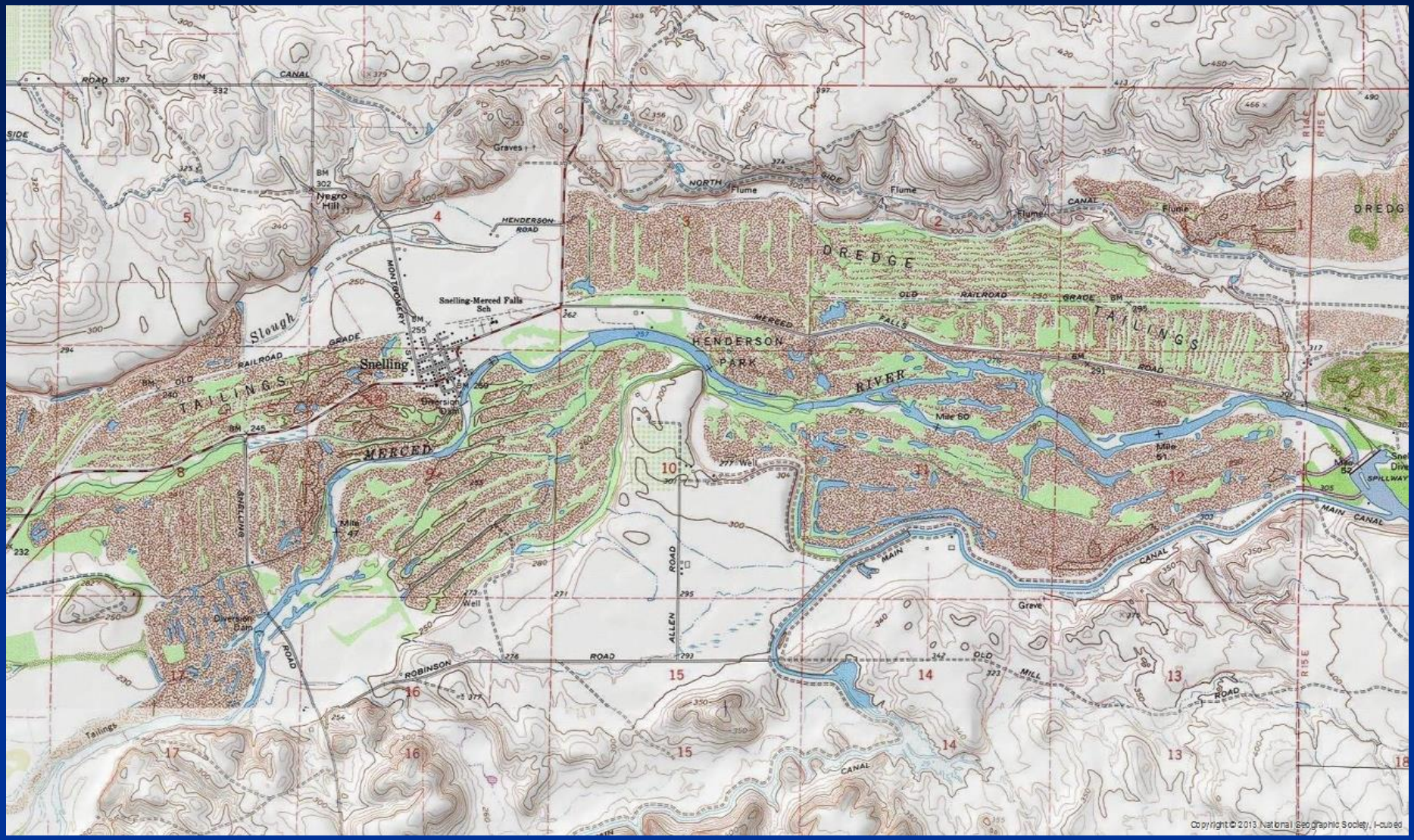


CDFA delimitation area of focus



Last known Nutria eradication
Los Angeles County - 1965

Snelling –
dredge tailing ponds on Merced River



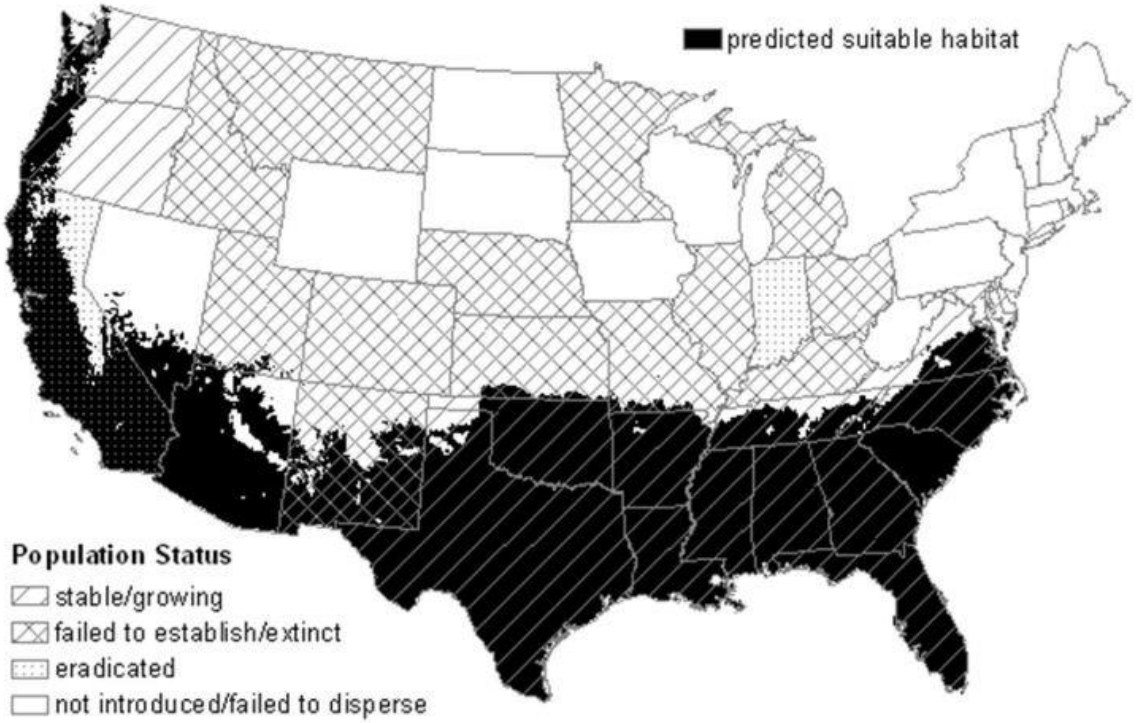


Figure 2.1.4. Geographical extent of predicted suitable nutria habitat (based on 2003-2007 mechanistic model) in the contiguous United States compared to status of nutria populations by state as described by Bounds (2000) and Carter and Leonard (2002)

Sheffels, Trevor Robert, "Status of Nutria (Myocastor coypus) Populations in the Pacific Northwest and Development of Associated Control and Management Strategies, with an Emphasis on Metropolitan Habitats" (2013). Dissertations and Theses. Paper 665.

Nutria monitoring board – W.S. Chesapeake Bay Nutria Eradication Project

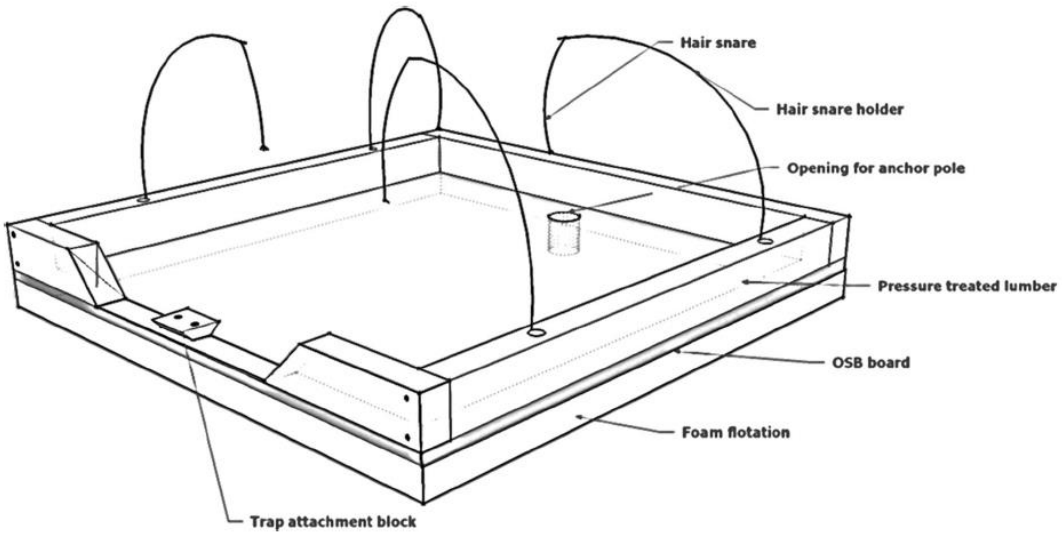


Fig. 2 Diagram of nutria monitoring platform used by the Chesapeake Bay Nutria Eradication Program. Platforms resemble a nutria bed (matted down vegetation) and can be placed on land or in the water


CDFA02

McConnell State Park

McConnell State Park
Merced River near Delhi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Discarded emergent portions of cattails show signs of nutria feeding. Nutria dig up the roots/corms of emergent vegetation and discard the majority of the plant. These floating portions of cut vegetation can often be seen from a distance.

Nutria feeding platform constructed from natural vegetation. The animals construct these platforms to create a haul out area near active feeding sites. Similar platforms may be constructed or feeding boards deployed to concentrate animals in front of cameras.

Nutria track showing three webbed toes of hind foot on top of smaller splayed out front foot track.

Nutria feeding damage. Vegetation is cut at a 45 degree angle with a shredded tear. Musk rats will often nibble along edges resulting in a frayed edge. Beaver feeding may result in similar 45 degree cuts, look for other sign to confirm presence of nutria.

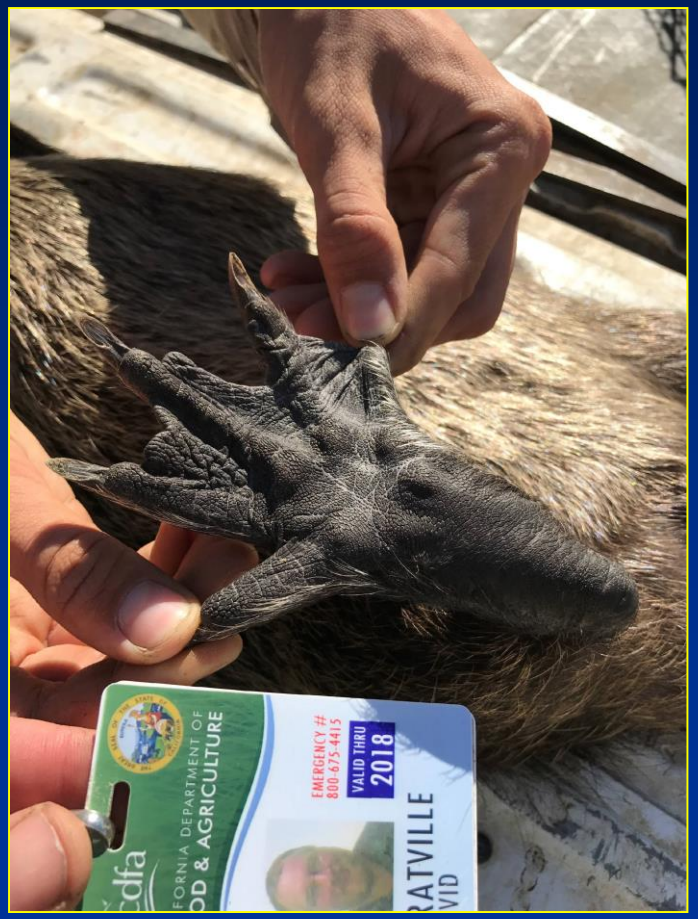
Floating scat.

https://www.wildlife.ca.gov/Conservation/Invasives/Species/Nutria/Infestation

Trail cameras deployed over bait and travel corridors.

Nutria tracks with “tail drag”.

Nutria feet, note partial webbing on hind foot.




Miner Slough
Sutter Island
Slough
Swing Bridge CL = 17' HW CL = 21' LW
Towers

Beaver track, webbed to tip of toes.


MOULTRIE
CAMERA 4
09 DEC 2017 12:45 am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Hydrilla, *Hydrilla verticillata*

Hydrilla, *Hydrilla verticillata*

Hydrilla, *Hydrilla verticillata*

Fills water column to depths of 20’

85% reduction in storage and conveyance

Hydrilla, *Hydrilla verticillata*

Hydrilla, *Hydrilla verticillata*

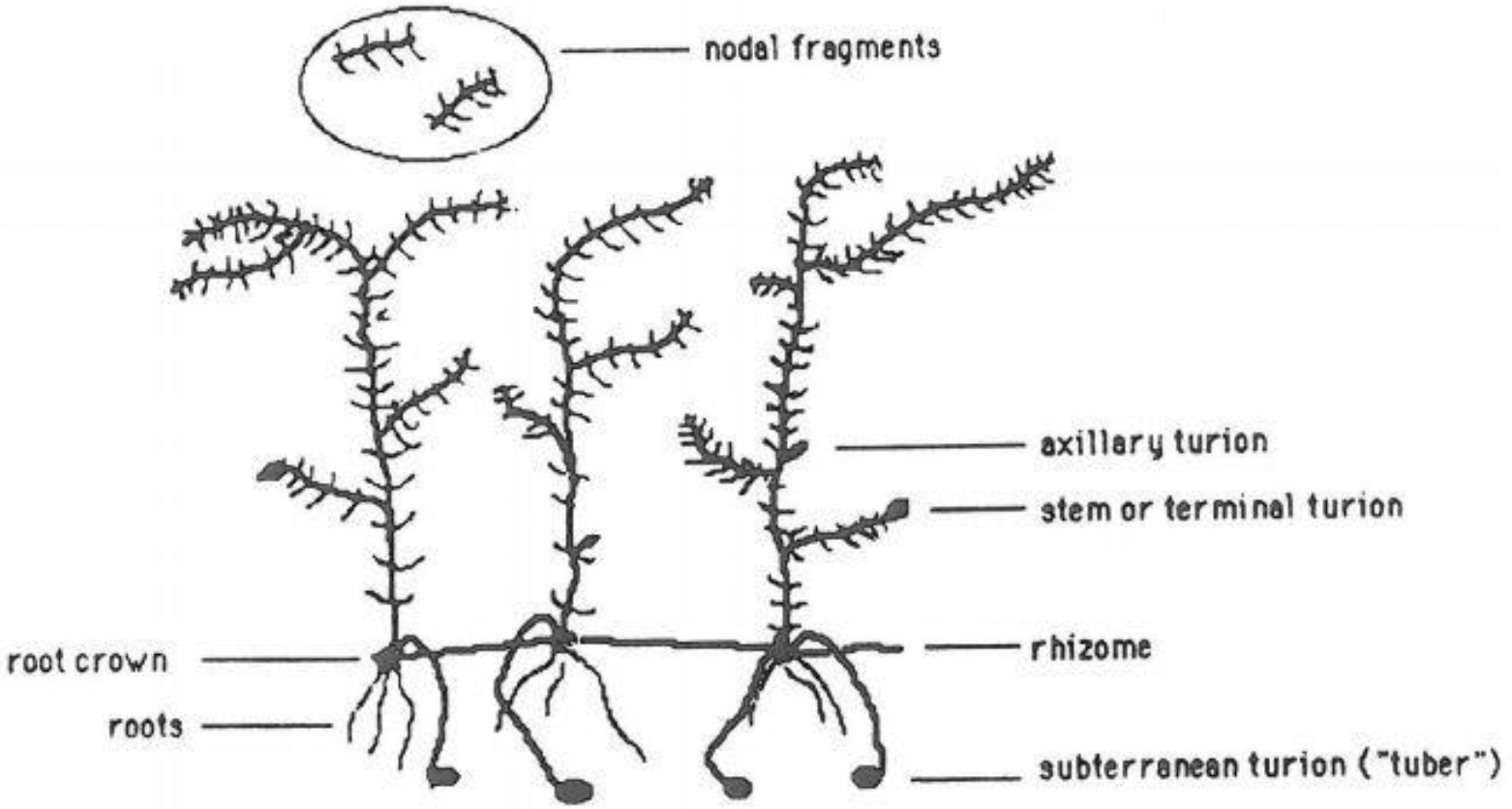

Figure 2. Position of various vegetative propagules on monoecious Hydrilla verticillata.

Hydrilla

Tubers and turions

Turions

Tubers

Root crowns, rhizomes and tubers.

Thank you!