Discovery of Invasive Nutria in California’s San Joaquin Valley

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Background

• Nutria or coypu (*Myocastor coypus*)

• Large, semi-aquatic rodent

• Native to South America

• Introduced for fur trade
  • Aquatic vegetation management

• Declared eradicated in 1970s
Reproductive by 4-6 months
- ≤ 3 litters/13 months

Live in social groups
- Dispersal ≤ 50 mi

Avg. home range size < 25 acres
- Movement 2 miles from den

Freshwater/brackish habitats
Identification

**Identification of Nutria (Myocastor coypus)**

- **Nutria**
  - Invasive
  - Conspicuous white whiskers
  - Tail rounded, rat-like, and partially covered in coarse hair
  - Tail still while swimming; body propelled by feet

- **Beaver**
  - Native
  - Black whiskers
  - Tail broad and flat.
  - Tail flattened top-to-bottom
  - Tail used for swimming with rapid side-to-side serpentine motion

- **Muskrat**
  - Native
  - Fine, black whiskers
  - Tail flattened side-to-side
  - Tail length up to 1 foot

**Whiskers/Head**
- Conspicuous white whiskers
- Muzzle often white

**Tail**
- Tail rounded, rat-like, and partially covered in coarse hair
- Tail still while swimming; body propelled by feet

**Body**
- Adult size: 10-20 pounds; body length to 2 feet, with 5 foot tail
- Juveniles similar in size to muskrats
- Hunched appearance on land

**Hind Feet**
- Partially webbed, one free toe
- Tail drag

**Tracks**
- 5 front toes; 4 visible in tracks
- Rear track to 6 inches in length
- Narrow tail drag may accompany tracks

If nutria are found in CA, immediately contact the CDFW Invasive Species Program to report your sighting at Invasives@wildlife.ca.gov or by calling (866) 440-9530.
Impacts

• Consume ≤ 25% of their weight each day

• Prefer basal portion of emergent vegetation
  • Destroy up to 10x the amount consumed

• Severe erosion, conversion to open water
Impacts

- Burrowing damages infrastructure and levees
  - 3-18 ft deep, may extend ≤ 150 ft into bank
Impacts - Louisiana

• Coastwide Nutria Control Program
  • Coastal Wetlands Planning, Protection, and Restoration Act
  • Incentives - $5/tail, 250 – 350 trappers
  • Since 2002, 5 M harvested ($24 M)
  • Estimated > 100K coastal acres damaged
Impacts – Chesapeake Bay

- Chesapeake Bay Nutria Eradication Project (CBNEP)
  - Control efforts began in 1950s
  - Nutria Eradication and Control Act of 2003
    - Authorized $4 M/yr/5 years
  - Led by USDA-APHIS-Wildlife Services and USFWS
  - $15.8 M over 15 years; current budget $1.5 M
Discovery in California

- Initial discovery - March 2017
- 30 taken, additional confirmed
- Juvenile/adult, M/F
- Stanislaus, Merced, Fresno, Tuolumne Counties
- Federal, State, and private land
Response in California

- Interagency Nutria Response Team
  - Dept. of Fish and Wildlife
  - USDA-APHIS-Wildlife Services
  - Dept. of Food and Agriculture
  - County Ag Commissioner’s Offices
  - Dept. of Parks and Recreation
  - US Fish and Wildlife Service
  - Dept. of Water Resources
Response in California

- To date, limited resources for:
  - Trapping
  - Surveys
  - Local outreach
  - Interstate consultations
  - Pursuit of funding

- CDFW allocation/redirection of resources
  - Seeking partner commitments

- Preparing eradication plan
  - Modeled after CBNEP
Response in California

5-phase strategy

- **Survey** – delimit the distribution of nutria
- **Knock-down** – systematic trapping to reduce populations to zero densities.
- **Mop-up** – early-detection and rapid removal of any remnant or immigrating nutria within previously trapped areas.
- **Verification** – repeated and on-going application of detection methods. Continued failure to detect nutria or signs of presence indicate site eradication has been achieved.
- **Surveillance** – continual monitoring at a reduced intensity to ensure eradication is achieved and maintained.
Response in California

- Multi-scale/concurrent phases
  - Home range vs. dispersal distance

- Eradication efforts
  - Maximize efficacy/efficiency of methods
    - Based on CBNEP methods/data
      - Monitoring platforms
      - Scat-detection dogs
      - Judas nutria
  - Avoid/minimize non-target take
    - Trap type/behavioral selectivity
  - Take by landowners vs hunters
Challenges and Needs in California

- Availability of long-term funding/resources
- Widespread access to private properties
- Establishing/maintaining effective surveillance network
- Navigating animal welfare concerns
- Preventing reintroduction...?
Nutria in California

Questions?

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