River otter foraging opportunities at a coastal wetland

Introduction

River otters (*Lontra canadensis*) are the top predator in functioning wetland ecosystems. Kruuk (1995) proposed that otter activity is probably driven by foraging opportunities, i.e., visiting sites where potential prey are vulnerable and found in abundance.

River otters may also readily switch their attention from fish, their favored prey, to alternative prey if the occasion arises (Lariviere & Walton 1998).

Methods

The HSU Wildlife Techniques class tested these ideas over spatial and temporal scales at the Arcata Marsh adjacent to Humboldt Bay, northern California, where large numbers of shorebirds and waterfowl periodically take refuge.

Up to 5 river otters regularly visit this marsh complex (HSU Wildlife, unpublished data).

We monitored otter latrines at two wetland types (a saltwater lake and freshwater treatment ponds), 5 times per day for 2 weeks in October 2003 to count and examine river otter scats.

Based on the foraging opportunity hypothesis we tested the prediction that otters would be most active at habitats with most food on offer, and at times when prey are most vulnerable and abundant.

Results

**Otter Diet**

- River otters ate a variety of prey.
- Birds were taken at all times of day and night.

Analysis of 31 scat.

**Spatial Scale**

- Whereas, Klopp Lake (salt) had 1400+ waterbirds as potential prey Gearheart Pond (fresh) only had 300 waterbirds, but...
- Otters visited both wetland types equally (on 9 of 14 days each).

**Temporal Scale**

- There was substantially more potential prey (Klopp Lake waterbirds) at high tide (above 1.4 m) when adjacent mudflats were covered.
- Tide height on the Bay was significantly higher when otters were present at Klopp Lake.

Discussion

Scat analysis showed that waterbirds made a major part of the river otter diet, a result that is unparalleled in other studies except for otters that hunt in seabird colonies (Speich & Pitman 1984).

River otters made use of both wetland types equally, perhaps obtaining different prey items in or adjacent to each.

Similar to predatory falcons at the marsh otters may also visit Klopp Lake when foraging opportunity (i.e. bird numbers) is greatest.

Unlike river otters in other studies (Lariviere & Walton 1998), Arcata Marsh otters can be seen at any time of day.

They were observed foraging on 3 occasions during our study: at 8:45 am, 1:45 pm and 5:20 pm.

The best chance to see river otters at the Arcata Marsh may be during higher tides when an abundance of waterbirds are present.

Literature Cited


