

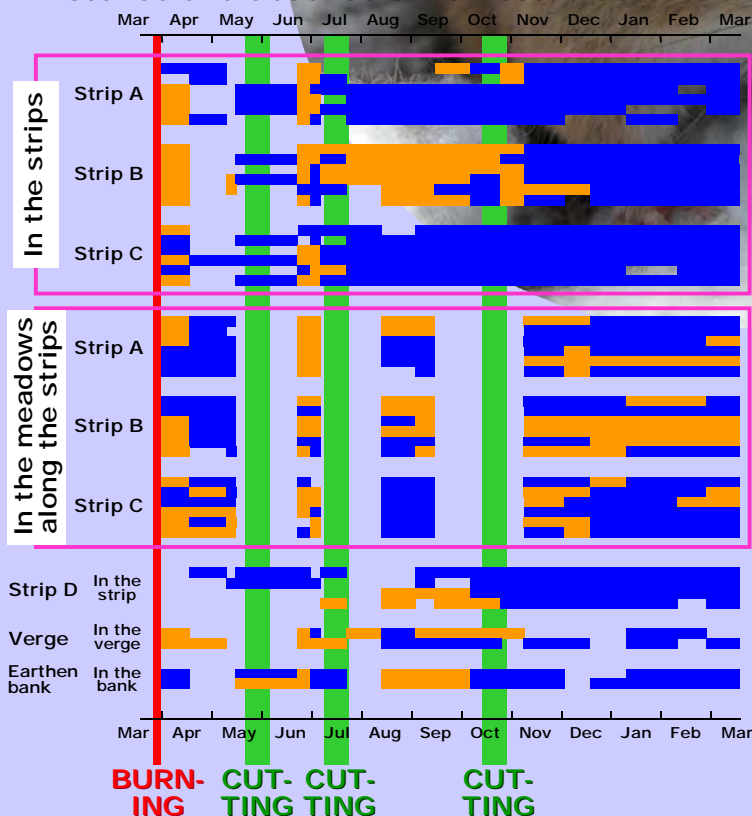
# MOVEMENTS OF HARVEST MOUSE IN GRASSLANDS UNDER DIFFERENT DISTURBANCES ON VEGETATION STRUCTURE

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*How do harvest mice deal with disturbances?  
 And where are they in winter?*

## RESULT:

Existence and absence of harvest mice



↑ Harvest mice left the strips after burning, and seemed to move into the contiguous meadows by degree. In summer when the grass built a canopy in the strips, harvest mice existed in strip A and did not in strip B, despite of their entirely same disturbance and vegetation as far as we identify.

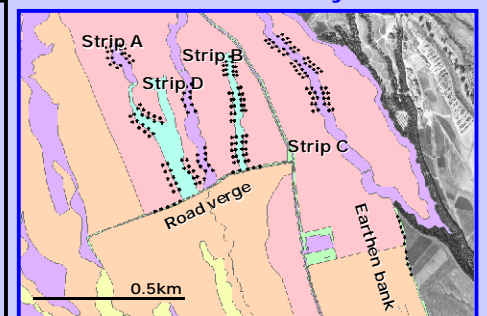
**DISCUSSION:** In grasslands that are composed of several vegetations under various disturbances such as our study area, a) harvest mice are likely to deal with disturbances by moving from grasslands without to ones with canopies, and b) they winter in withered grasses in strips. Adaptation to grasslands would help this species to respond well to artificial disturbances and to winter there.



Native grass strips run across meadows. *Miscanthus sinensis* is dominant in the three strips (A, B and C). Added to this grass, bushes exist in the strip D, and shrubs, dwarf bamboos, and separated trees on an earthen bank.

Trap stations on the landscape context of our study area

Lat. 131'23"  
 Long. 33'04"  
 830m above the sea  
 About 65ha  
 219 trap stations at a 20 m interval along strips within a set and a 10-15 m interval across a border of vegetations



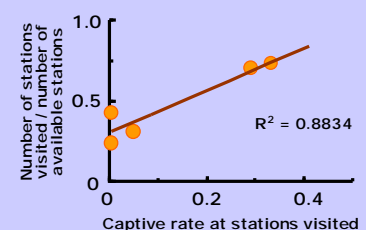
Native grass strips burned every March  
 Land used irregularly  
 Meadows cut 3 times in a year  
 Pastures for grazing

**METHOD:** We adopted 'feeding sign trapping method' (see below). We regarded a set containing more than one station where harvest mice left their feeding signs from a session until its next one as their existence at the set at the period. The traps were checked and reset almost every 20 days.

### What's the feeding sign trapping?

You are able to detect existence of harvest mice without grueling live trapping by means of setting sunflower seeds in containers and searching their feeding signs several days after setting. Their feeding signs are distinguished from those of larger rodent species by the shape of shells left behind.

The number of stations where harvest mice left their feeding signs / the number of available trap stations ratio shows significant positive relation to the captive rate at the stations where they left their feeding signs.



(Ishiwaka *et al.*, in preparation)