• Song sparrows can hold onto their territory for about 8 years which creates a relatively stable neighborhood and the number of years that an individual male song sparrow holds his territory increases about fourfold as the number of song types shared with his neighbors goes from fewer than 5 to more than 20

## FEMALE PREFERENCES AND SONG LEARNING

- A male Cassin's finch has been close to a female for a while and she leaves, the number of osngs he sings and the time he spends singing increase dramatically, maybe in an attempt to get his partner back
- If female preferences are designed to get them to mate with males produced in their natal aream then female white-crowns should prefer males with the dialect that they heard whilethey were nestlings and they do not
- Healthier partners might be able to provide offspring with above-average parental care
- Superior songsters may be in better shape and therefore be capable of offering offspring better paternal care than the average male
- Song-rich males bring more food to their offspring, which grow bigger, a result that almost certainly raises the reproductive success of females that find larger song repertoires sexually appealing, which in turn selects for males that are able to sing in the favored manner
- One hypothesis is that the quality of vocal learning couragive female songbirds a valuable clue about the quality of the single's a potential mates. The key point is that song learning occurs when males are very young and growing rapidly. If rapid growth is difficult to sustain, there you mates that are hand happed by genetic defects or nutritional stress valuable to isop 10, resulting in suboptimal brain development
- **Constably** showed that male is a calceled as much food as they could eat while another group received only 70% of that amount, were superior. The experimentally deprived birds came to sing poorer copies, compared with the controls of the taped song aht both groups listened to during their early weeks of captivity
- Female sparrows can be primed hormonally to respond with a tail up precopulatory **display** to male songs they find sexually stimulating
- The research shows that males able to learn their songs fully and well will be rewarded sexually by potential mates
- Females spent more time by a speaker playing the directed song of an unfamiliar male or her mate, compared to her mate's undirected song==this preference was linked to the properties of cels in the caudomedial mesopallium (CMM) in the auditory cortex of the zebra finch brain by Wooley and Doupe
- Other female songbirds definitely prefer the songs that are relatively difficulty to produce
- Females are attracted to males that sing right up to the limits of performance
- Females serins prefer males that sing at relatively high frequencies, which is another physiological challenge for males