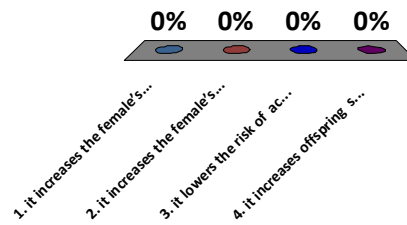


Female painted redstarts pair with a male (social mate) and raise their young on his territory. Males accept only one female nest on their territory. Females do all the work of rearing offspring, males contribute no parental care. Females may also mate surreptitiously with other males (extra-pair copulations), so that all of the offspring are not fathered by the territorial male. Sexual selection theory would predict that females which mate with additional males do so because:

1. it increases the female's fecundity
2. it increases the female's fitness
3. it lowers the risk of acquiring sexually transmitted diseases
4. it increases offspring survival



In species like the painted redstart, where females engage in extra-pair copulations (EPC mate), what would sexual selection theory predict about the EPC mate compared to the social mate?

1. the territory of the EPC mate should be larger than that of the social mate
2. the EPC mate should provide parental care unlike the social mate
3. the EPC mate should have a lower pathogen load than the social mate
4. the coloration of the EPC mate should be more brighter than that of the social mate

