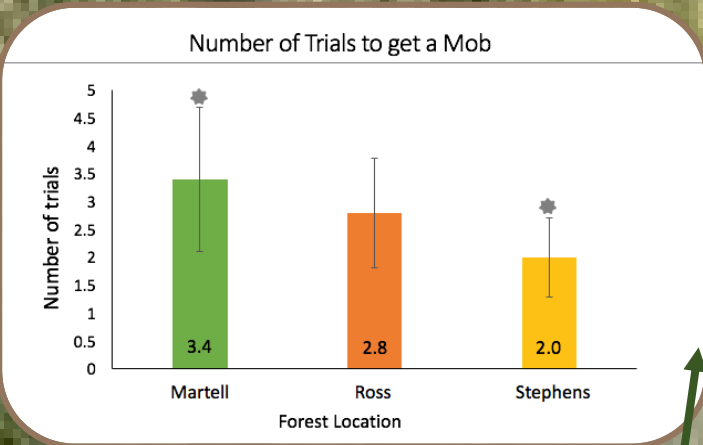
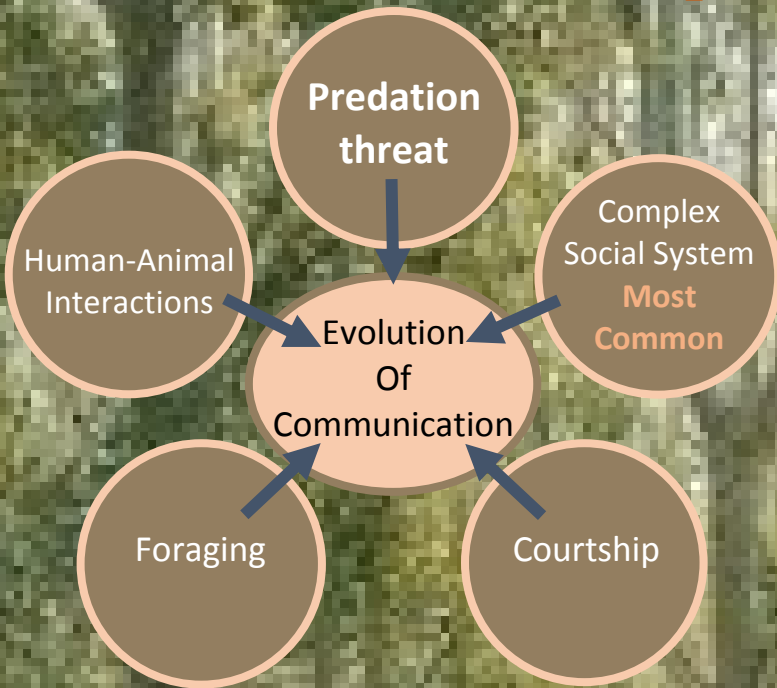


Evolution of Communication through Predation

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If a serious threat is brought about through predation, species may use vocal and physical communication to protect themselves.

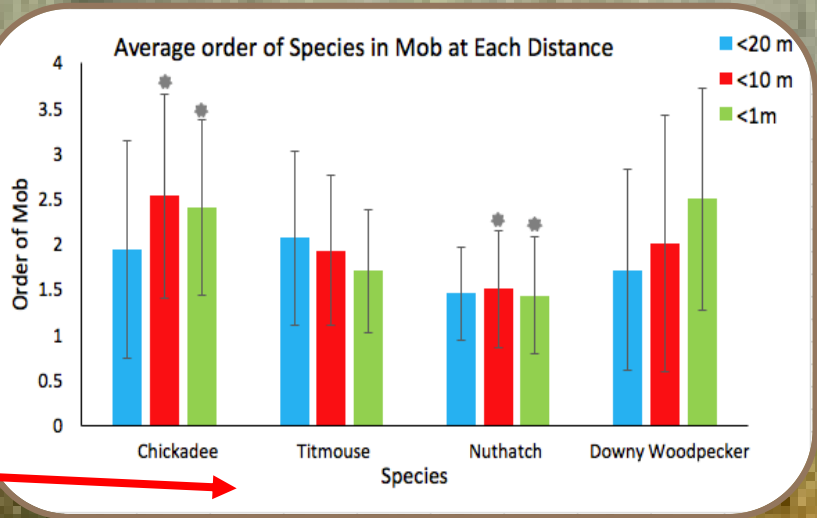
A mob (shown above) is a harassing action done by mixed-species bird flocks experiencing a dangerous situation. To perform a mob, species will fly towards a predator in hopes of scaring the predator away.

A mob can potentially create new signals in bird species, causing communication to evolve.

Previously recorded Eastern Screech owl calls (predator playback) were projected through 3 forests that varied in size to measure the mobbing responses in 4 small bird species.

When a playback was played in smaller forests (ex: Stephens), birds mobbed in response to the danger more often than the same species who live in larger forests (ex: Martell). (shown above)

Birds who live in small territories (ex: Nuthatches) were the 1st species to initiate a mob when a playback was played. (shown on the right)



Birds experience a more severe level of threat when there is more to lose. When a playback recording was played through small forests, or in the presence of birds who live in small territories, mobs occurred more frequently. This study illustrates how communication can evolve in circumstances such as predation, instead of through the large numbers of species in a flock or living together in a territory (complex social system). This study is essential for researchers who hope to learn how birds communicate to stay alive, and how flocks with less social complexity can be leaders in the evolution of communication.