



SING WELL...GET A MATE SING POORLY...MISS OUT



A hostile environment and inconsistent weather may explain why some birds become better singers than others, and are also likely to have superior learning and mating skills, according to a new study.

The research is based on a large-scale study of mockingbirds in different habitats carried out by researchers at the National Evolutionary Synthesis Centre (NESCent) in Durham, North Carolina, the Cornell University Lab of Ornithology, and McGill University.

"As environments become more variable or unpredictable, song displays become more elaborate," said Carlos Botero, a postdoctoral researcher at NESCent.

"Survival and reproduction become more complicated when weather patterns are unpredictable because you don't know when food will be available or how long it will be around."

And for female birds, "the consequences of picking a mediocre mate are magnified in harsher climes," he said.

Male mockingbirds sing mainly to impress mates, so superior singing skills suggest that a male is a good catch, according to Botero. But males that sing more complex songs also "tend to carry fewer parasites, and have offspring that are more likely to survive," Botero said.

Songbirds are not born knowing how to sing, and have to learn their songs over time. Botero and colleagues believe that this song-learning ability is a sign of broader learning ability.

"Birds that sing better are telling others, at least indirectly: Hey, I'm a good learner," said Botero.

Botero searched sound archives around the world and travelled the southern hemisphere to tape bird songs in the wild, recording nearly a hundred tracks from twenty-nine mockingbird species.

He later used computer programs to convert each sound recording into a sound graph, then compared the patterns to a database of temperature and precipitation records.

The study appears in the US journal *Current Biology*.