

Lovelorn frogs bag closest crooner

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Females tend to mate with the closest calling male. Credit: Ivonne Meuche, Oscar Brusa, Karl E. Linsenmair, Alexander Keller and Heike Pröhl

What lures a lady frog to her lover? Good looks, the sound of his voice, the size of his pad or none of the above? After weighing up their options, female strawberry poison frogs (*Oophaga pumilio*) bag the closest crooner they can, finds research in BioMed Central's open access journal *Frontiers in Zoology*. This seemingly short-sighted strategy turns out to be the optimal mate choice strategy for these colourful frogs.

Males of the species congregate in the Costa Rican [rain forest](#) 'lek-style'

to display and call together, giving females the chance to weigh up multiple males at once. But despite their best efforts, build and territory size, females tend to mate with the closest calling male, Ivonne Meuche from the University of Veterinary Medicine, Hannover, Germany, and colleagues report.

The find was confirmed by playback experiments where females, played recordings of various male calls, failed to discriminate between different call rates or frequencies, preferring instead, the nearest speaker.

[Female mate choice](#) is a tricky business. Some species chose the first mate that is 'good enough' whilst others seek out and compare many mates before returning to choose the fittest. But the simplest, least costly option is to mate with the first or nearest male encountered, regardless of quality. The strategy doesn't seem an evolutionary winner as it means that nearby, unfit [frogs](#) sometimes get to pass on their genes at the expense of more distant, genetically-superior specimens. But it does make sense in certain situations.

Non-choosy behaviour like this has been noted in fishes, and some [frog species](#) with a lek-like mating system. It's thought the strategy works for them because it reduces 'costs' in terms of search time and competition for mates. Female strawberry [poison frogs](#) may also benefit little from 'shopping around' because strong inter-male competition means the available mates are all much of a muchness.

The team also noted that females unable to find a mate within a certain time period ended up laying unfertilised eggs that never hatch. So in species, like the strawberry poison dart frog, where the choosing sex outnumbers the chosen sex, it makes sense to 'grab the nearest guy' rather than run the risk of not mating at all.

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