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## Red frogs are more devilish than their green counterparts

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By [Emily Benson \(/author/emily-benson\)](/author/emily-benson) | 2 December 2015 1:00 pm | [Comments \(/plants-animals/2015/12/red-frogs-are-more-devilish-their-green-counterparts#disqus\\_thread\)](/plants-animals/2015/12/red-frogs-are-more-devilish-their-green-counterparts#disqus_thread)

Do aggressive frogs see red? According to a new study of poisonous frogs in Panama, they *are* red. Most research on color and behavior in toxic amphibians has focused on interactions between individuals of the same species or between predators and prey. To address how frogs react to other species competing for similar resources, researchers collected 100 male strawberry poison dart frogs (*Oophaga pumilio*, pictured)—50 green and 50 red—and two other types of frogs from Panama's Bocas del Toro archipelago. After letting the strawberry poison dart frogs establish territories in the lab, the scientists dropped trespassing frogs, one at a time, into each resident's home turf. When confronted by members of their own species and one other frog species, [red strawberry poison dart frogs reacted more violently than green ones](#)

(<http://link.springer.com/article/10.1007/s00265-015-2027-5>), the researchers will report in an upcoming issue of *Behavioral Ecology and Sociobiology*. Belligerent behaviors included shaking their legs threateningly, chasing opponents, and pinning them down. The scientists suggest red frogs may be free to battle rivals because their vivid skin, by signaling their toxicity, offers them more protection from predators than green frogs possess. Because red and green frogs were collected on separate islands, it's possible that their levels of aggression reflect conditions they've encountered in the past rather than innate differences, a distinction that could be teased out by raising frogs of different hues under identical conditions. The team also plans to examine whether amphibious antagonism in the wild means fewer species coexist on islands dominated by aggressive red frogs. Their reactions to competitors—froggy feuds or calm coexistence—could shape the ecosystems in which they live.

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Science| DOI: 10.1126/science.aad7508

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