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[SMITH, JAMES F](#) [1], [Clark, John K.](#) [2], [Marín-Gómez, Oscar H.](#) [3].
Species of Hybrid Origin in *Columnea* (Gesneriaceae).

Speciation by hybridization has long been recognized among plants and includes both homoploid and allopolyploid speciation. The numbers of presumed hybrid species averages close to 11 % and tends to be concentrated in a subset of angiosperm families. Recent advances in molecular methods have verified species of hybrid origin that had been presumed on the basis of morphology and have identified species that were not initially considered hybrids. A phylogenetic analysis of species in *Columnea* (Gesneriaceae) indicated incongruencies between the cpDNA dataset and the nrDNA dataset in four species that had not previously been suspected as hybrids. The discrepancies placed the species in clades that matched morphology with cpDNA, but in a different clade with nrDNA. Tests that examined whether one or both of the datasets had the phylogenetic signal to reject the topology of the alternate dataset (SH and AU tests) indicated significant differences between the topologies. The genealogical sorting index implied that coalescence in nrDNA had occurred in all species, but the GSI value was lower for the cpDNA of *C. gigantifolia* and *C. rubriacuta*, implying that these regions have not yet coalesced in these lineages. The JML test that evaluates simulated pairwise distances against observed distances also implies that observed nrDNA data generate shorter distances than simulated data, implying hybridization. The cpDNA data place *C. rubriacuta*, *C. gigantifolia*, and *C. sp. nov.* in agreement with their morphology, implying that nrDNA has introgressed into their genome from a different clade rather than the more commonly observed chloroplast capture.

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