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A synopsis of success: honeybees out of Africa

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Africanized and pure African *Apis* dominate the *Apis* world. Books and review articles notwithstanding, there are no robust explanations of Africanized honeybees success in the Americas. What distinguishes Africanized, now naturalized, honeybees in the Americas? Relatively high metabolism, toticolony defensive behavior, rapid and evasive queen behavior and colony absconding, predator and parasite deterrence, formation of megaswarms, long-distance dispersal, extreme generalization (equable use of primary resources), limited honey hoarding, and visual and olfactory specialization at the neural level. The colony's opportunistic nest site selection, has, as a counterpart, mechanisms of choosing to maintain a reproductive home or moving on. It is a migratory strategy, similar to its biologically closest relatives, migratory giant honeybees. I suggest the key success of this new honeybees variety stems from a ‘cut and run’ strategy. If a monumental defense is ineffective, the queen and the colony abscond. If flowering is meager, the bees forage as individuals not as a colony. And the colony is small, and migratory. This could be called a ‘sustainable’ honeybee for the Americas, or is it? Most the above traits are the antithesis of managed, hived honeybees [colonies]. They are not aggressive foragers, do not usurp other bee nests, but individual swarms disperse 30 km or more. Early work in French Guiana typified reproduction as semi-monthly, while later work in Panama showed one or two annual swarming peaks, coinciding with floral abundance. Early work showed greater reaction to alarm pheromones, and later work showed a greater proportion of defending colony members. Early work indicated polylecty, while later work showed true generalization’ equal proportional resource use. It is tempting to speculate that behavioral resistance to diseases, anti-honey-rustler ‘attitude' and foraging success in suboptimal conditions outweigh other factors which now guide honeybees management.