



Mite conservation: which species should we care about—and should we care at all?*

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The enormous diversity of mites, some of which depend upon a single host species, coupled with threatened species and environments, means that some must be endangered or even extinct. But how do we identify an endangered mite species, recognise which species are at greater risk of extinction, and determine how they can be incorporated in conservation efforts? Here, I discuss mite conservation first by splitting mites into two groups: those associated with hosts and free-living mites. Host-specific mites living on endangered animals and plants are endangered or threatened themselves. Among these, at greatest risk are mite species with off-host dispersal: these will have a critical host density. Conservation efforts for endangered host animals and plants should also consider the host's microfauna, a particularly challenging issue for hosts raised without contact with infested individuals and that many species remain undescribed. In contrast to host-associated mites, demonstrating that a free-living mite is endangered is difficult, requiring extensive survey work. Thus, few examples exist. Finally, what role could mites play in conservation? While it is unlikely that a mite will become the focus of a conservation effort, they could be included as part of an endangered community that, along with other species in a particular habitat, could play a collective role in conservation goals.

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