



Landing Platforms For Flying Foxes

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Bats are the only group of mammals that can truly fly, and this trait is limited by captivity (Wilson, 1988). The Animal Welfare Act as Amended (7 USC, 2131-2156) Policy #24 states that bats must be provided with sufficient unobstructed enclosure volume to enable movement by flying and sufficient roosting space to allow all individuals to rest simultaneously. Flight is one of the most important enrichment priorities with bats, and some species may develop weight problems if not allowed to exercise in this fashion. Since flight is so important, bat workers also need to be concerned with the end product of flight, which is landing. While small agile microbats such as the short-tailed leaf-nosed bat (*Carollia perspicillata*) are able to land on vertical cave walls the larger megabats are far less graceful. Malayan flying foxes (*Pteropus vampyrus*) with their 5 -6 foot wingspans are more similar to an albatross in their need for lots of flying space and landing room. Flying foxes need natural or artificial vines, ropes, or smooth branches around the perimeter of the enclosure for landing platforms. When these platforms are not available or young bats are learning to fly and land in their enclosures, these bats are prone to chronic abrasions on their rostrum and the third digit of their hand wings. These abrasions are continually reopened and lead to possible disfigurement and even fractures that can lead to the loss of flight. At the Lube Foundation, Inc., large braided polyethylene ropes (1 -1 1/2" [2.7 -4.6 cm]) are hung around the circumference of octagonal flight cages (LeBlanc, 1999). These ropes are attached at each corner of the octagon and drop one and a half to two times the total body length of the bat between points of attachment. The ropes are also placed 1 1/2 times the total body length of the bat away from the walls of the enclosure. Rodrigues fruit bats (*Pteropus rodricensis*) fly over the ropes and use the claws on their feet as grappling hooks to grab a hold of the rope. The heavier island flying foxes (*Pteropus hypomelanus*) and Malayan flying foxes (*Pteropus vampyrus*) will use the same technique, but also have been observed to grab the rope with the nails on their thumb and second finger of the hand wing and shortly thereafter the rear feet. This landing platform system has greatly reduced chronic abrasions on flying foxes and could be duplicated in zoo enclosures by using natural and artificial vines.

References

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